

NEW JERSEY

ECONOMIC DEVELOPMENT AUTHORITY

PROCEDURES MANUAL

FOR

DESIGN CONSULTANTS

PREFACE

The “Procedures Manual for Design Consultants” (Manual) is published to cover areas of special interest and concern to Architects, Engineers, Project Managers, Client School Districts, and Government agencies including the New Jersey Economic Development Authority (Authority).

This Manual explains the procedures and services required of Design Consultants and the monitoring and oversight which will be provided by the Authority. Although the Manual is directed toward intermediate and large sized School Facilities Projects, it identifies the general process for all School Facilities Projects. This Manual is intended to compliment the Agreement by defining the standards of quality for those services required by the Agreement between the Authority and the Design Consultant (Design Consultant Agreement).

Submission requirements and standards contained in this Manual are mandatory unless they are specifically deleted or revised in the Agreement.

The “Procedures Manual for Design Consultants” is divided into eleven (11) chapters. Each chapter provides details on the administrative processes associated with a typical School Facilities Project or the particular tasks of a specific Phase of a School Facilities Project.

To facilitate periodic updating, the Manual is available on the Authority’s website and is also available in a loose-leaf format for firms having no access to the Internet. Modifications will be formally transmitted to those in registered possession of this Manual.

Chapter 1 - Definitions

This chapter sets forth commonly used terms contained in this manual.

Chapter 2 – General Requirements

This chapter provides a description of general requirements of the Design Consultant.

Chapter 3 - Project Commencement

This chapter discusses the initial project meeting between the Authority Project Officer, PMF and the Design Consultant. Each party’s responsibilities are addressed in detail.

Chapter 4 - Program Phase

The majority of School Facilities Projects will not include a Program Phase performed by a Design Consultant since the development of a School Facilities Project program will usually be done by the Client School Districts in conjunction with their design consultant. It is during this phase that a Scope of Work (SOW) is developed which may include an analysis of alternatives, program definition, narrative description, space analysis, site evaluation, diagrammatic sketches, HVAC system analysis, budget, schedules and Contract deliverables.

Chapter 5 - Schematic Design Phase

The program and Scope of Work prepared in the Program Phase are further developed to illustrate the design and character of the School Facilities Project. Schematic Design will include one (1) submission for review by the Authority when overall design drawings are approximately 25% complete.

Chapter 6 - Design Development Phase

The drawings and specifications prepared in the Schematic Design Phase are further developed into the working drawings during this Phase. Design Development will include one (1) submission for review by the Authority when overall design drawings are approximately 50% complete.

Chapter 7 - Construction Documents Phase

The drawings and specifications prepared in the “Design Development Phase” are further developed into the working drawings during this Phase. Construction Documents will include three (3) submissions for review by the Authority when Construction Documents are 60% complete, 95% complete, and 100% complete. Upon completion, the construction documents are submitted for review by the Authority, Regulatory Agencies and the Client School District. Final Construction Documents will be used to apply for a construction permit.

Chapter 8 - Bidding and Contract Award Phase

Once all permits, funding requirements, approvals, etc. are obtained, the School Facilities Project will be advertised for bid. During this Phase the Design Consultant has certain contractual obligations including attendance at a contractor pre-bid site visit and conference, attendance at the bid opening and the preparation of the recommendation for award. All of these responsibilities are explained in this section.

Chapter 9 - Construction Administration Phase

This chapter explains the role of the Design Consultant, PMF, and the Authority during the Construction Administration Phase of the School Facilities Project. Some of the duties of the Design Consultant during this Phase include attendance at the project job meetings; the preparation of the conformed drawings to include any changes made during the bid period; approval of Submittals; review of change orders and invoices; the witnessing of all required equipment and system testing; and the preparation and submission of field inspection reports.

Chapter 10 - Project Close-Out

During this critical portion of the Construction Administration Phase, the Design Consultant’s responsibilities begin to focus on the preparation of the inspection Punchlists, the preparation of the “Record Set” of drawings and other documents required to complete and close-out the School Facilities Project.

Chapter 11 - Post Occupancy Review Phase

Prior to the expiration of the warranty period, the Design Consultant may be engaged on certain School Facilities Projects to perform an inspection of the project to review the adequacy and performance of materials, systems and equipment under warranty.

DEFINITIONS

New Jersey Economic Development Authority

CHAPTER 1

DEFINITIONS

1.1 Definitions

CHAPTER 1

DEFINITIONS

1.1 Definitions

The terms set forth in this Manual shall have the meanings ascribed to them for all purposes of this Manual unless the context clearly indicates some other meaning. Words in the singular shall include the plural and words in the plural shall include the singular where the context so requires.

- 1.1.1 "Agreement" means the Design Consultant Agreement (and all appendices) between the Authority and the Design Consultant for the provision of design and construction administration services for the School Facilities Project, as such agreement may be amended from time to time in accordance with the provisions hereof.
- 1.1.2 "Amendment" means an amendment to the Agreement executed by the Authority and the Design Consultant.
- 1.1.3 "Authority" means the New Jersey Economic Development Authority, created pursuant to P.L. 1974, c.80, as amended (N.J.S.A. 34:1B-4 *et seq.*) or any successor thereto.
- 1.1.4 "Authority Project Officer" means the Authority's representative authorized to act on behalf of the Authority with respect to the School Facilities Project and the Contractual Documents.
- 1.1.5 "Bidding and Contract Award Phase" means a Phase of the Construction Phase as more fully set forth in this Procedures Manual for Design Consultants.
- 1.1.6 "Change Order" means a written order authorizing some change, in whatever degree, to the Construction Contract Documents, including, but not limited to, an increase or decrease in the Construction Work, or an acceleration of time for the performance of such Construction Work, or a change in the sequence in which such Construction Work is performed.
- 1.1.7 "Claim" means a demand or assertion by one of the parties seeking, as a matter of right, adjustment or interpretation of Contractual Documents, payment of money, extension of time or other relief with respect to the terms of the Contractual Documents and shall also mean other disputes and matters in question between the parties arising out of or relating to the Contractual Documents.
- 1.1.8 "Claims Adjustment Committee" means the committee established by the Authority for the purposes of resolving any Claims of the Design Consultant.
- 1.1.9 "Client School District" means the school district in which the School Facilities Project is located, as such school district is identified in Appendix A (Special Conditions) of the Agreement. There may be more than one Client School District.
- 1.1.10 "Construction Administration Phase" means a Phase of the Construction Phase as more fully set forth in this Procedures Manual for Design Consultants.

Chapter 1 – Definitions

- 1.1.11 "Construction Administration Services" means the services necessary for the administration and oversight of the construction of a School Facilities Project so as to ensure that the construction is being conducted as is required by the Construction Contract Documents.
- 1.1.12 "Construction Change Directive" means a written order, directing or authorizing some change, in whatever degree, to the Construction Work but for which compensation has not yet been determined.
- 1.1.13 "Construction Cost Estimate" or "CCE" means the estimated cost of construction at time of bid for the School Facilities Project, which amount does not include the costs of permits, acquisition of land, site development, furnishings, contingencies, professional fees, financing costs, and any other similar types of costs. The Initial CCE for each School Facilities Project shall be set forth in the Project Description and will be the approved CCE. The Design Consultant will be required to reconcile estimated costs to the approved CCE with each design submittal. Upon approval by the Authority of each cost estimate, the new estimate will become the current approved CCE.
- 1.1.14 "Construction Contract Documents" means the agreement between the Authority and the Contractor governing the construction of all or a portion of the School Facilities Project and all other documents setting forth the obligations of the Contractor with respect to construction of the School Facilities Project.
- 1.1.15 "Construction Documents" means the documents required to be prepared and submitted by the Design Consultant during the Construction Documents Phase as set forth in the Procedures Manual for Design Consultants.
- 1.1.16 "Construction Documents Phase" means a Phase of the Design Phase as more fully set forth in this Procedures Manual for Design Consultants.
- 1.1.17 "Construction Management Firm" or "CMF" means the firm that has been selected by the Authority to provide construction management services to the Authority in connection with the School Facilities Project. There may or nor be a CMF during the Term of this Agreement. Such firm, if one has been selected, shall be identified in Appendix A (Special Conditions) of the Agreement.
- 1.1.18 "Construction Milestones" means the dates by which critical activities of the Construction Phase must be completed. The Construction Milestones for each School Facilities Project shall be identified in Appendix A (Special Conditions) of the Agreement.
- 1.1.19 "Construction Phase" means that phase of this School Facilities Project during which the construction of the School Facilities Project is undertaken by a Contractor or Contractors. The Construction Phase shall have subsumed within it the Bidding and Contract Award Phase, the Construction Administration Phase and the Post Occupancy Review Phase.
- 1.1.20 "Construction Work" means the services performed by the Contractor or any Subcontractor pursuant to the Construction Contract Documents, whether completed or partially completed and includes all other labor, materials, equipment and services provided or to be provided to fulfill such obligations.
- 1.1.21 "Contract Change Request" or "CCR" means the document containing a request by the Authority to the Contractor to submit a proposal to make proposed changes to the Construction Contract Documents in accordance with the CCR.

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- 1.1.22 "Consultant-Performance Evaluation Policy and Procedure" means the policies and procedures developed by the Authority for the purpose of evaluating the performance or Work of a Design Consultant under the Contractual Documents.
- 1.1.23 "Contractor" means that person or firm or those persons or firms engaged by the Authority to undertake the construction of the School Facilities Project pursuant to the Construction Contract Documents. There may be either a single "general" Contractor who has overall contractual responsibility for delivering all of the construction services needed to complete the School Facilities Project or there may be multiple Contractors who have responsibility for delivering particular aspects of the School Facilities Project.
- 1.1.24 "Contractual Documents" means all documents setting forth the obligations and responsibilities of the Design Consultant and the Authority with respect to the School Facilities Project and includes, but is not limited to, the Request for Proposal, the Proposal, the Agreement, the Project Description, the Procedures Manual for Design Consultants, any Amendments and addenda, and all exhibits and schedules attached to such documents.
- 1.1.25 "Current Working Estimate" or "CWE" means the estimated cost to complete the School Facilities Project and includes the cost of construction, permits, acquisition of land, site development, furnishings, contingencies, professional fees, financing costs, and any other similar types of costs. The Initial CWE for each School Facilities Project shall be set forth in the Project Description.
- 1.1.26 "Day" or "Days" mean(s) a calendar day or days, except as otherwise specifically provided for in the Contractual Documents.
- 1.1.27 "Deliverables" means, among other things, technical data, plans, specifications, minutes, approvals, recommendations, drawings, reports, computer discs, spare parts lists, instruction books, operating and maintenance manuals, documents, writings, materials, services or any other thing the delivery of which, however accomplished, is required, explicitly or implicitly, by the Contractual Documents.
- 1.1.28 "Design Consultant" means the Architect or Engineer or other Professional Services Consultant selected by the Authority to provide design services and Construction Administration Services in connection with the School Facilities Project.
- 1.1.29 "Design Consultant Project Manager" means that person designated by the Design Consultant to serve as its representative during the Term.
- 1.1.30 "Design Development Documents" means the documents required to be prepared and submitted by the Design Consultant during the Design Development Phase as set forth in this Procedures Manual for Design Consultants.
- 1.1.31 "Design Development Phase" means a Phase of the Design Phase as more fully set forth in this Procedures Manual for Design Consultants.
- 1.1.32 "Design Milestones" means the dates by which critical activities of the Design Phase must be completed by the Design Consultant. The Design Milestones for each School Facilities Project shall be identified in Appendix A (Special Conditions) of the Agreement.

Chapter 1 – Definitions

- 1.1.33 "Design Phase" means that phase of this Agreement in which the design of the School Facilities Project is undertaken by the Design Consultant. The Design Phase shall consist of the Schematic Design Phase, the Design Development Phase and the Construction Documents Phase and may also include the Program Phase.
- 1.1.34 "DOE" means the New Jersey Department of Education.
- 1.1.35 "DOE Scope of Work" or "SOW" means the DOE-issued document identifying the Work to be performed for the School Facilities Project. The DOE Scope of Work may be amended, from time to time, in accordance with the provisions of this Agreement. The DOE Scope of Work is included in the Project Description, which is attached hereto as Appendix C.
- 1.1.36 "Fee Proposal" means the Fee Proposal submitted by the Design Consultant in response to a request for Fee Proposals.
- 1.1.37 "Final Completion" means that point in time when all requirements of the Construction Contract Documents have been performed, when all items on the Punchlist have been performed, when a Certificate of Occupancy has been issued and when final payment under the Construction Contract Documents may occur.
- 1.1.38 "Final Construction Cost Estimate" or "Final CCE" means the CCE for the School Facilities Project set forth in the Final Project Report.
- 1.1.39 "Final Current Working Estimate" or "Final CWE" means the CWE for the School Facilities Project set forth in the Final Project Report.
- 1.1.40 "Final Project Report" means the final report submitted to the Authority by the DOE which report is DOE's direction to the Authority to undertake construction of the School Facilities Project described therein.
- 1.1.41 "Fiscal Year" means the fiscal year of the Authority, which commences on January 1 of each year and ends on December 30 of the same year.
- 1.1.42 "Initial Construction Cost Estimate" or "Initial CCE" means the CCE for the School Facilities Project set forth in the Project Description.
- 1.1.43 "Initial Current Working Estimate" or "Initial CWE" means the CWE for the School Facilities Project that is set forth in the Project Description.
- 1.1.44 "Key Team Member" means a principal, partner or officer of the firm, or a project executive, project manager, senior principal, studio head, or job captain identified in the Technical Proposal as having a responsible role in the successful completion of a School Facilities Project and who generally spends or is expected to spend 20 percent or more of his/her time on any phase of a School Facilities Project.
- 1.1.45 "Notice-to-Proceed" means a notice from the Authority to the Design Consultant directing the Design Consultant to commence performing its responsibilities pursuant to this Agreement. Each School Facilities Project identified in Appendix A (Special Conditions) of the Agreement may have its own Notice-to-Proceed for the Design Phase and Notice-to-Proceed for the Construction Phase.

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- 1.1.46 "Package" means the collective group of School Facilities Projects that have been included in the
- 1.1.47 "Permit Application" means that part of the Construction Documents Phase as more fully set forth in this Procedures Manual for Design Consultants.
- 1.1.48 "Post Occupancy Review Phase" means a Phase of the Construction Phase as more fully set forth in this Procedures Manual for Design Consultants.
- 1.1.49 "Procedures Manual for Design Consultants" or "Manual" means the manual of the Authority governing the procedures to be followed by Design Consultant with respect to School Facilities Projects. The Design Consultant shall be bound by the Procedures Manual for Design Consultants in effect as of the date of execution of this Agreement, unless otherwise instructed by the Authority pursuant to an Amendment.
- 1.1.50 "Professional Services Consultants" means consultants, including Design Consultants, providing professional services associated with research, development, design and construction administration, alteration, or renovation of real property, as well as incidental services that members of these professions and those in their employ may logically or justifiably perform. These consultants may provide services including studies, investigations, surveys, evaluations, consultations, planning, programming, conceptual designs, plans and specifications, cost estimates, construction management, inspections, shop drawing reviews, preparation of operating and maintenance manuals, and other related services.
- 1.1.51 "Professional Services Consultant Agreements" means the agreements between the Authority and Professional Services Consultants in connection with a School Facilities Project and, unless otherwise noted, shall include this Agreement.
- 1.1.52 "Program Management Firm" or "PMF" means the firm engaged by the Authority, at its sole option, to provide overall construction management services, oversight, direction, coordination and reporting in connection with School Facilities Projects undertaken by the Authority. Such firm is one has been selected, shall be identified in Appendix A (Special Conditions).
- 1.1.53 "Program Phase" means a Phase of the Design Phase as more fully set forth in this Procedures Manual for Design Consultants.
- 1.1.54 "Programmatic Requirements" means those School Facilities Project-specific requirements established or approved by the DOE or the Authority.
- 1.1.55 "Project Close-Out Phase" means a Phase of the Construction Phase as more fully set forth in the Procedures Manual for Design Consultants.
- 1.1.56 "Project Description" means the document(s) identifying and describing the School Facilities Project. The Project Description may be amended, from time to time, in accordance with the provisions of this Agreement. The Project Description is attached hereto as Appendix C. The Project Description may include the DOE Scopes of Work and may also include the preliminary project report, prepared and approved by the DOE and issued to the Authority. The Project Description shall contain, in addition to other things, a general description of a School Facilities Project, along with the Initial CCE and the Initial CWE.

Chapter 1 – Definitions

- 1.1.57 "Punchlist" means the list, prepared before Substantial Completion, of incomplete or defective work to be performed or remedied by a Contractor after Substantial Completion.
- 1.1.58 "Request for Proposals" means the request issued by the Authority for proposals from Professional Services Consultants, which request may include a request for a Technical Proposal and/or a request for a Fee Proposal.
- 1.1.59 "Schedule" means the time frames established by the Design Consultant to complete the Work within the Design Milestones and the Construction Milestones which sets forth the dates by which each of the Phases in the Design Phase and the Construction Phase shall be completed.
- 1.1.60 "Schematic Design Documents" means the documents required to be prepared and submitted by the Design Consultant during the Schematic Design Phase as set forth in this Procedures Manual for Design Consultants.
- 1.1.61 "School Facility" means and includes any structure, building or facility used wholly or in part for academic purposes but excludes athletic stadiums, grandstands and any other structure, building or facility that is used solely for school administration.
- 1.1.62 "School Facilities Project" means the acquisition, demolition, construction, improvement, repair, alteration, modernization, renovation, reconstruction or maintenance of all or any part of a School Facility or of any other personal property necessary for or ancillary to any School Facility; and for the purposes of this Agreement, the Design Consultant shall be responsible for all School Facilities Projects identified in the Special Conditions, attached hereto as Appendix A, and the phrase "School Facilities Project" shall include all projects so identified.
- 1.1.63 "School Facilities Project Team" means the team(s) identified by the Authority for the School Facilities Project. Such team(s) shall consist of, but not be limited to, representatives of the Client School District, the Authority Project Officer, the Design Consultant, the CMF, the Contractor, and any other Professional Services Consultants engaged by the Authority in connection with the School Facilities Project. The School Facilities Project Team may also include, at the option of the Authority, representatives of the PMF and of the DOE.
- 1.1.64 "Special Conditions" means that document attached as Appendix A to the Agreement, and made a part thereof, as such document may be amended from time to time, which identifies, among other things, the School Facilities Projects for which the Design Consultant shall be responsible.
- 1.1.65 "State" means the State of New Jersey.
- 1.1.66 "Subconsultant" means the Professional Services Consultant to whom another Professional Services Consultant sublets part of the work for which the latter is responsible.
- 1.1.67 "Subcontractor" means the contractor to whom a Contractor, Professional Services Consultant or other Subcontractor sublets part of the work for which such Contractor, Professional Services Consultant or other Subcontractor is responsible.
- 1.1.68 "Submittal" means all documents required to be submitted by the Contractors, including, but not limited to, shop drawings, product data and samples.

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- 1.1.69 "Substantial Completion" means that point in time when all essential requirements of the Construction Contract Documents have been performed so that the purpose of the Construction Contract Documents is accomplished; when the Punchlist has been created; when there are no important or material omissions or technical defects or deficiencies, as defined by the Authority; and when the School Facilities Project is ready for occupancy in accordance with its intended purpose.
- 1.1.70 "Technical Proposal" means the proposal submitted by the Design Consultant in response to a Request for Technical Proposals.
- 1.1.71 "Term" means the term of this Agreement as set forth in Section 4 hereof.
- 1.1.72 "Uniform Construction Code" means the New Jersey Uniform Construction Code as set forth in N.J.A.C. 5:23-1 et seq.
- 1.1.73 "Unit of Fiscal Integrity" means that unit within the Office of the Attorney General created by Section 70 of the Educational Facilities Financing and Construction Act, P.L.2000, c.72.
- 1.1.74 "Value Engineering" means those services to be performed by the PMF and Design Consultant in accordance with the recommendations of the Society of American Value Engineers and shall include mechanical systems, roofing systems, finishes, energy management systems, lighting and power systems, site work, as well as maintainability and operability considerations.
- 1.1.75 "Work" means the services performed by the Design Consultant pursuant to the Contractual Documents, whether completed or partially completed and includes all other labor, materials, equipment and services provided or to be provided to fulfill such obligations.

GENERAL REQUIREMENTS

New Jersey Economic Development Authority

CHAPTER 2

GENERAL REQUIREMENTS

- 2.1 Organization**
- 2.2 Phases**
- 2.3 Schedule**
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CHAPTER 2

GENERAL REQUIREMENTS

2.1 Organization

The Authority has retained the services of a Project Management Firm (PMF) to manage the design and construction phases of each School Facilities Project. The Design Consultant's primary contact while performing its services will be the PMF designated in Appendix A, Special Conditions, of the Design Consultant Agreement.

Within the Authority, an Authority Project Officer will be assigned to the School Facilities Project to work with the PMF. The Authority Project Officer will be responsible for giving approvals and making decisions on behalf of the Authority. The PMF will be responsible for managing day-to-day activities during the School Facilities Project.

In most cases, construction contracts will be awarded to a single general Contractor who will employ the required Subcontractors to complete the School Facilities Project.

2.2 Phases

Project work will be performed in distinct phases of work. A typical School Facilities Project will consist of the following phases:

DESIGN PHASE

- Program Phase
- Schematic Design Phase (SD)
- Design Development Phase (DD)
- Construction Documents Phase (CD)
 - 60% CD
 - 95% CD (Final Review Set)
 - 100% CD (Permit Application)

CONSTRUCTION PHASE

- Bidding and Contract Award Phase
- Construction Administration Phase (CA)
- Post Occupancy Review Phase

Many School Facilities Projects will begin with the Schematic Design Phase. Some smaller School Facilities Projects may combine multiple design phases into a single phase. Specific requirements for each School Facilities Project will be identified in Appendix A, Special Conditions, of the Design Consultant Agreement.

2.3 Schedule

A milestone schedule for design and construction will be provided in Appendix A, Special Conditions, of the Design Consultant Agreement. Prior to the commencement the Design Consultant's Work, the Design

Consultant shall, for each School Facilities Project, prepare and submit for review and approval/revision, by the PMF, a schedule showing the order and time frames in which it proposes to carry out their Work. The design schedule must include all details related to design work, design submittals, cost estimates, review periods, and other major activities for each phase. Major milestone dates such as reviews, presentations, and bids shall be consistent with the milestone schedule provided to the Design Consultant by the Authority in the Agreement. The schedule shall be in a form that may be used to show both the proposed schedule and actual progress for each School Facilities Project.

At the beginning of each design submittal phase, the Design Consultant shall review the approved design schedule of the School Facilities Project and confirm it with the PMF. Should, in the opinion of the Design Consultant, the schedule need revision, the request must be made in writing and approved by the PMF.

The Design Consultant shall immediately advise the PMF of any difficulties encountered during the project which may impact the schedule. The PMF will attempt to alleviate those problems and notify the Design Consultant accordingly.

2.4 Cost Estimates

The Design Consultant shall prepare, with each design submittal, a Construction Cost Estimate (CCE). The CCE will be reconciled with the CCE prepared by the PMF and the previously approved CCE. The level of detail of each CCE must be appropriate to the level of detail of the drawing submittal.

The Design Consultant will be required to verify, with a CCE at each Design Submittal, that current design complies with the currently approved CCE.

2.5 Meetings

The Design Consultant shall attend all meetings scheduled through the PMF unless otherwise instructed. The PMF will ensure that all parties concerned with the School Facilities Project will be present at the meetings.

Design Phase progress meetings with the PMF will be required at an interval appropriate to the schedule of the project. Meetings will also be required with the Client School District at each school facility included in the project to adequately determine the needs of the School Facilities Project.

Construction Administration Phase progress meetings with the PMF will be required at an interval appropriate to the activity of the project. Progress meetings will be held as directed by the PMF at least weekly.

The PMF is responsible for recording the minutes of all meetings unless stated otherwise in the Design Consultant Agreement. Copies of minutes must be distributed to all present and as designated by the Authority Project Officer. The minutes of project design meetings shall be numbered consecutively beginning with the Pre-Design Meeting through all design Phases, ending at the start of construction. The minutes of construction meetings shall be numbered consecutively beginning with the Pre-Construction Meeting, continuing through construction and ending at the close-out of construction

2.6 Correspondence

All project correspondence, submittals and documents shall be directed to the PMF. All general correspondence shall reference a package title and number along with location and project number, if applicable. Correspondence

Chapter 2 – General Requirements

shall be submitted in original with distribution as required by the PMF. Distribution of copies is to be noted at the bottom of all correspondence.

2.7 Services Beyond the Work

The Design Consultant's Agreement is with the New Jersey Economic Development Authority. If the Design Consultant accepts instructions from others, beyond the services in the approved Agreement, the firm proceeds at its own risk and may not receive payment for those services.

It is important that the entire project team be familiar with the progress of the School Facilities Project to enable expeditious approval of adjustments to the Agreement and fee when required.

2.8 Agreement Amendments (Consultant Change Order)

An Agreement Amendment is required to authorize additional contractual services by the Design Consultant. A request for an increase to the Design Consultant's Work may be initiated by the Authority or by the Design Consultant. The Design Consultant must thoroughly document the request for an Agreement Amendment by submitting a detailed proposal of the amended services with all supporting documentation to the PMF. The PMF will review the submitted request for completeness and compliance with current policies and procedures. Negotiations will be initiated with the Design Consultant if necessary. The PMF will prepare and submit a recommendation for approval to the Authority. Upon approval by the Authority, an Agreement Amendment form will be executed by the Authority and the Design Consultant and additional services may commence.

2.9 Audits of Design Consultant Agreements

When circumstances require, the Authority and the Unit of Fiscal Integrity have the responsibility to conduct audits of Design Consultant Agreements. Therefore, all records and billings must be in accordance with generally accepted accounting principles and practices as required in the Design Consultant Agreement. The Design Consultant is required to maintain all project records for three years after the project is closed out. After three years, the Design Consultant must offer them to the Authority prior to destruction.

2.10 Payments

The Design Consultant shall submit, no more frequently than monthly, an invoice for services. The invoice must be on the standard Authority invoice form. Invoices must be submitted to the PMF for review. The PMF will recommend processing of payment to the Authority.

Unless otherwise agreed and specified in the Agreement, payment against the lump sum fee shall be paid as follows:

<u>With All Phases</u>		<u>Without Program Phase</u>	
Program Phase	8%		
Schematic Design Phase	13%	Schematic Design Phase	15%
Design Development	18%	Design Development	20%
Construction Documents	28%	Construction Documents	30%
Construction Administration	28%	Construction Administration	30%
Final Close-out	5%	Final Close-out	5%

Payment for Allowances included in the Agreement shall require backup to support all submitted costs.

Chapter 2 – General Requirements

2.11 Insurance

The Design Consultant is to provide and pay for the insurance coverages required in the Design Consultant's Agreement with the Authority including Professional Liability Insurance, Comprehensive General Insurance, Worker's Compensation Insurance, and Comprehensive Automobile Insurance. A certificate of such insurance must be filed with the Authority at the time of execution of the Agreement. Insurance certificates must be updated as required. The Design Consultant is required to maintain and keep in force all such insurance in the amounts stated in the Agreement from the date of the Agreement until a date at least six months following the actual completion of construction and acceptance of the School Facilities Project by the Authority. The Design Consultant shall provide thirty (30) days notice in writing to the Authority prior to the cancellations, expiration, non-renewal, or material modification of its insurance coverages.

2.12 Errors and Omissions

Although attempts are made throughout the project process by the Design Consultant and Authority to preclude Errors and Omissions (E/Os) by careful design review, the Design Consultant is accountable if E/Os are encountered.

The Design Consultant shall exercise a degree of care and diligence in rendering all services under its Agreement with the Authority in accordance with the highest professional standards. The Authority will seek reimbursement for those E/Os found to be valid.

2.13 Performance Evaluations

Evaluations of Design Consultant performance on specific School Facilities Projects will be prepared by the PMF and the Client School District at the completion of the Construction Document Phase and at the completion of the Construction Administration Phase using the appropriate Design Consultant evaluation form. The evaluation will indicate the Design Consultant's assessed rating of performance on individual items of responsibility and an overall evaluation of performance compiled from the ratings of all individual items applicable during a specific phase of a project. The ratings shall also reflect the performance of Subconsultants who are part of the Design Consultant's design team.

The performance evaluations will be used as a factor in determining the Design Consultant's responsibility to perform School Facilities Projects for the Authority and in the determination of selecting firms for new assignments.

PROJECT COMMENCEMENT

New Jersey Economic Development Authority

CHAPTER 3

PROJECT COMMENCEMENT

3.1 Notice-to-Proceed

3.2 Pre-Design Meeting

CHAPTER 3

PROJECT COMMENCEMENT

3.1 Notice-to-Proceed

Following execution of the Design Consultant Agreement, a Notice-to-Proceed for the Design Phase will be issued to the Design Consultant. The Notice-to-Proceed for the Design Phase is the authorization for the Design Consultant to begin work under the Agreement.

3.2 Pre-Design Meeting

Upon issuance of the Notice-to-Proceed for the Design Phase, a Project Pre-Design Meeting will be scheduled by the PMF with the Design Consultant. The agenda for this meeting will include, but not be limited to:

- a. Review of Design Consultant's scope of work
- b. Review of School Facilities Project(s)
- c. Review of Construction Cost Estimates (CCE)
- d. Review of Project Schedule
- e. Review of Project Directory
 - Design Consultant Staffing
 - Subconsultant Staffing
 - PMF Staffing
 - Authority Staffing
 - Client School District Staffing
- f. Establishment of Project Meeting schedule
- g. Review of Procedures
- h. Correspondence
 - Design Submittals and Reviews
 - Approvals
 - Agreement Amendments
 - Changes to scope of the School Facilities Project

The PMF is responsible for preparing the minutes of this meeting as well as all subsequent project design meetings. The minutes shall be numbered consecutively beginning with the project commencement meeting and ending with the commencement of construction. Minutes shall be distributed within seven (7) calendar days of the meeting date. Copies of minutes shall be distributed to all present and also as designated by the Authority Project Officer.

PROGRAM PHASE

New Jersey Economic Development Authority

CHAPTER 4
PROGRAM PHASE

4.1 Schedules

4.2 Reserved for Future Use

4.3 Reserved for Future Use

4.4 Submission Requirements

- 4.4.1 Narrative
- 4.4.2 Space Analysis
- 4.4.3 Special Features
- 4.4.4 Site Evaluation
- 4.4.5 Borings and Surveys
- 4.4.6 Reserved
- 4.4.7 Design Renderings
- 4.4.8 Regulatory Approvals
- 4.4.9 Utility Availability
- 4.4.10 Diagrammatic Sketches
- 4.4.11 Outline Specifications
- 4.4.12 Construction Cost Estimate
- 4.4.13 Schedule
- 4.4.14 Formal Presentation
- 4.4.15 Submission Checklist
- 4.4.16 “Booklet” Format

4.5 Approval

4.6 Attachments

CHAPTER 4

PROGRAM PHASE

Certain School Facilities Projects may require that a Program Phase study with appropriate programming investigation, analysis and documentation be undertaken in order to develop a detailed Scope of Work for the School Facilities Project.

The purpose of the Program Phase study is to determine the most effective approach to meet the Client School District's needs and to develop a SOW to meet those needs. The requirements of the SOW document are discussed in detail in the Authority's "Guidelines for the Development of a Model Scope of Work for School

4.1 Schedules

Prior to the commencement of the Program Phase, the Design Consultant shall review the design schedule and confirm it with the PMF. Should, in the opinion of the Design Consultant, the schedule need revision, the request must be made in writing and approved by the PMF.

The Design Consultant shall immediately advise the PMF of any difficulties encountered during the programming process. The PMF will attempt to alleviate those problems and notify the Design Consultant accordingly.

4.2 Reserved for Future Use

4.3 Reserved for Future Use

4.4 Submission Requirements

Drawings, specifications and other documents listed as a deliverable shall be submitted to the PMF by the Design Consultant for review by all parties at the completion of each task during program development. The Design Consultant shall forward a letter of transmittal listing in detail all the material submitted. The letter is to be identified and addressed as stated under Section 2.6 (Correspondence). The Design Consultant shall submit ten (10) copies of the documents or the quantity noted in the Request for Proposal, if stated.

Program documents shall be in sufficient detail to outline the scope, cost and schedule of the School Facilities Project, and shall consist of, but not be limited to the following.

4.4.1 NARRATIVE DESCRIPTION OF PROJECT

Provide a description of the School Facilities Project's programming requirements including purpose, long-range planning, etc. Immediate-, short- and long-range master planning must be included to adequately define the planning process.

4.4.2 SPACE ANALYSIS

Provide a description of the proposed School Facilities Project program, outlining all functional requirements necessary to effectively support the project and how such functional requirements have

Chapter 4 – Program Phase

been met. This information will be the result of interviews with representatives of the Client School District, maintenance personnel, and other designated parties to identify and document their requirements and program needs.

4.4.3 SPECIAL FEATURES

Provide a description of any special features of the School Facilities Project, such as communication systems, security systems, fire-protection systems, special structural systems, etc.

4.4.4 SITE EVALUATION

Visit the site and provide a description of significant aspects of the project site which may impact positively and/or negatively on the design, such as seismic zone, topography, configuration, easements, surrounding development, etc.

4.4.5 BORINGS AND SURVEYS

When the Agreement provides for an allowance for services such as borings, surveys, testing or exploratory work, the Design Consultant must obtain competitive proposals from three (3) firms. (See Section 6.4.2.)

4.4.6 RESERVED

4.4.7 DESIGN RENDERINGS

Design renderings are not a requirement during this phase of a School Facilities Project.

4.4.8 REGULATORY APPROVALS

A listing of all of the Regulatory Agencies having jurisdiction over the School Facilities Project shall be incorporated into this study along with a statement relating the impact that each Agency will have on the project including the elements of cost and time. The Regulatory Agencies listed in 6.4.5 may be used as a guide.

4.4.9 UTILITY AVAILABILITY

The Design Consultant must obtain written verification from the applicable authorities that off-site facilities exist and can service the project. Letters pertaining to sanitary, storm, water, fire-protection, gas, electrical, cable and telephone services must be obtained. Such letters shall:

- Confirm availability of adequate service including pressures available, specific consumption or loads and approximate date of service.

- Establish a firm commitment by the utility, or in the case of on-site utilities, the Client School District to provide the service.

- Contain statements regarding any special regulations and/or requirements which, should they not be included in the Contractual Documents, would result in

Chapter 4 – Program Phase

significant redesign and/or extra cost of construction by having to be included at a later date.

Generally state the extent of work to be done by the provider of the utility and whether there will be any fees to be paid by the Client School District or Contractor.

4.4.10 DIAGRAMMATIC SKETCHES/DRAWINGS

The diagrammatic sketches include at least the following:

An area site plan.

A project site plan.

Single-line floor plans showing functional layout; indicate sq. ft. areas of each floor.

A narrative description of the HVAC system and controls in sufficient detail to allow a proper understanding of its operation.

4.4.11 OUTLINE SPECIFICATIONS

Outline specifications for the project are to be developed following the CSI or MASTER SPEC format as described in Section 7.4.7 of this Manual.

4.4.12 CONSTRUCTION COST ESTIMATE

A Construction Cost Estimate (CCE), based on the Program Documents, is to be developed and submitted by the Design Consultant in the CSI Master Spec or equivalent format. The CCE is the Design Consultant's best estimate of the cost of construction at the time bids are received.

The Design Consultant will also assist the PMF in developing the Current Working Estimate (CWE). Cost figures for those items in the CWE which are in addition to the CCE, such as land acquisition, furniture, equipment, moving costs, rental of temporary space, construction management fees, permit fees, testing, surveys, construction contingency, etc., must be established at this time.

4.4.13 SCHEDULE

The PMF will provide a design and construction schedule to the Design Consultant for its review and comment.

4.4.14 FORMAL PRESENTATION

Certain School Facilities Projects will require a presentation before the Authority and/or Client School District. Should this be the case the SOW will include this requirement as a Deliverable.

Chapter 4 – Program Phase

The purpose of the presentation is to familiarize the appropriate parties with the design of the School Facilities Project and, by doing so, allow them to determine if the project meets their needs and is also within the approved scope.

During this presentation, the Design Consultant should describe its design philosophy and design process used in the development of the final product, the various alternatives considered, any scope changes added during the design process, the latest Construction Cost Estimate and the major milestones for design and construction of the School Facilities Project.

Selected studies and sketches done during the course of the design process may be presented to support the current design solution. Copies of the current design documents should also be available for review.

The presentation should be approximately one to two hours in duration.

4.4.15 SUBMISSION CHECKLIST

The appropriate Submission Checklist (Figures 4.4.15) shall be completed by the Design Consultant and included as the cover sheet of the submission to document to the PMF that all of the required deliverables have been submitted.

4.4.16 “BOOKLET” FORMAT

All of the above required deliverables shall be presented in an 8 1/2” x 11” bound “booklet” format with reduced site plans, drawings, etc., unless noted otherwise in the Agreement. In addition, all drawings shall be submitted on sheet sizes of thirty (30) inches by forty-two (42) inches with all lettering at least one-eighth (1/8) inch high.

4.5 Approval

The PMF will distribute the Design Consultant’s Program Phase submission to all appropriate parties. Written comments from all parties will be compiled by the PMF and forwarded to the Design Consultant.

Within the number of calendar days specified in the Agreement, the Design Consultant shall respond to the comments and provide any clarification requested. If required, the Design Consultant shall prepare additional submissions as necessary to develop a solution that satisfies the requirements of the project.

Final review and acceptance of the documentation by the Authority will constitute formal approval.

4.6 Attachments

Figure 4.4.15 Submission Checklist, Program Phase

Chapter 4 – Program Phase

SUBMISSION CHECKLIST

PROGRAM PHASE

PACKAGE #: _____

DOE PROJECT # _____

Design Consultant: _____

PROJECT NAME _____

SUBMISSION	Required By SOW		Previously Submitted		Enclosed	
	Yes	No	Yes	No	Yes	No
4.4.1 Narrative description of the project						
4.4.2 Space Analysis						
4.4.3 Special features description						
4.4.4 Site evaluation						
4.4.5 Borings and surveys						
4.4.6 Reserved						
4.4.7 Design renderings						
4.4.8 Regulatory Agency approval listing						
4.4.9 Confirm utility availability for:						
Sanitary service						
Storm water						
Domestic water						
Gas service						
Fire service						
Electric service						
Telephone service						
Cable service						
4.4.10 Diagrammatic sketches/drawings						
4.4.11 Outline specifications						
4.4.12 Construction Cost Estimate						
4.4.13 Confirmation of Schedule						
4.4.14 Presentation of this submission						
4.4.15 This submission checklist						
4.4.16 Booklets containing this submission						

Design Consultant Signature

Date

This checklist shall be completed by the Design Consultant and included with this submission to document the status of all of the deliverables required by the SOW

(Figure 4.4.15)

SCHEMATIC DESIGN PHASE

New Jersey Economic Development Authority

CHAPTER 5

SCHEMATIC DESIGN PHASE

5.1 General

5.2 Reserved for Future Use

5.3 Reserved for Future Use

5.4 Submission Requirements

- 5.4.1 Statement of Site Visit
- 5.4.2 Special Features
- 5.4.3 Site Evaluation
- 5.4.4 Borings and Surveys
- 5.4.5 Reserved
- 5.4.6 Design Renderings/Sketches
- 5.4.7 Regulatory Agency Approvals
- 5.4.8 Utility Availability/Approval
- 5.4.9 Drawings
- 5.4.10 Specifications
- 5.4.11 Construction Cost Estimate
- 5.4.12 Schedule
- 5.4.13 Project Presentation
- 5.4.14 Submission Checklist
- 5.4.15 Booklet Format

5.5. Approval

5.6 Attachments

Figure 5.4.14 Submission Checklist

CHAPTER 5

SCHEMATIC DESIGN PHASE

Schematic Design documents expand on the design as described in Chapter 4 to adequately reflect the scope, cost and schedule of the School Facilities Project. The Schematic Design documents define the concept and basic design of the School Facilities Project. This chapter describes those basic requirements expected of the Design Consultant during this phase. The submission for this phase takes place when the overall design effort is approximately 20% / 25% complete.

5.1 General

- 5.1.1 The Design Consultant shall proceed with Schematic Design Phase services only upon approval of the Program Phase documents by the Authority pursuant to Section 4.5.
- 5.1.2 Based on the programs, schedules, and CCE requirements, the Design Consultant shall prepare, for submittal to the PMF, Schematic Design Phase documents consisting of drawings and other documents illustrating the scale and relationship of the project components for each School Facilities Project.
- 5.1.3 The Design Consultant's submittal shall include a preliminary construction cost estimate for each School Facilities Project based on current area, volume, or other unit costs.
- 5.1.4 The Design Consultant shall prepare, as part of the Schematic Design Phase, conceptual design studies including: (a) drawings indicating space relationships; (b) site-use drawings; and (c) written description of basis of approach to each School Facilities Project.

5.2 Reserved for Future Use

5.3 Reserved for Future Use

5.4 Submission Requirements

Drawings, specifications, Regulatory Agency Approvals and other material shall be submitted to the PMF for review by the appropriate parties at the completion of the Schematic Design Phase. Unless defined otherwise in the SOW, ten (10) copies of the submission will be required.

The Schematic Design Submission shall be in sufficient detail to outline the scope, cost and schedule of the School Facilities Project, and shall consist of, but not be limited to the following.

5.4.1 STATEMENT OF SITE VISIT

The Design Consultant shall submit a statement verifying that it (a) has visited the site, (b) has visually inspected the proposed location of major facilities and (c) is satisfied that all survey data is reasonably accurate as to apparent surface outcroppings, streams, trees, undergrowth, and other features that present unusual conditions which could adversely affect the design and construction cost of the School Facilities Project.

Chapter 5 – Schematic Design Phase

When a Design Consultant is given access to “As-Built” or “Record Set” drawings, the Design Consultant must physically verify them in the field to determine if the drawings are accurate in those areas affecting this School Facilities Project.

Should the Design Consultant require access to secure areas of a building or to internal areas of its equipment, panels, etc., the Design Consultant must request that the PMF arrange with the Client School District’s operations/maintenance staff to provide such access.

5.4.2 SPECIAL FEATURES

Provide a description of any special features of the School Facilities Project, such as communication systems, security systems, fire-protection systems, special structural features, etc.

5.4.3 SITE EVALUATION

Provide a description of significant aspects of the project site which may impact positively or negatively on the design, such as topography, configuration, easements, surrounding development, utilities, etc.

5.4.4 BORINGS AND SURVEYS

When the Agreement provides an allowance for borings and surveys, the Design Consultant must obtain competitive proposals from three (3) firms.

5.4.5 RESERVED FOR FUTURE USE

5.4.6 DESIGN RENDERINGS/SKETCHES

It is recommended that the preliminary layout of any required renderings be submitted at this time for approval. Design “sketches” (free hand isometrics, etc.) may also be provided to convey the design concept of special areas such as lobbies, special fenestration features, etc.

5.4.7 REGULATORY AGENCY APPROVALS

Please refer to Section 6.4.5

5.4.8 UTILITY AVAILABILITY/APPROVAL

Please refer to Section 6.4.6

5.4.9 DRAWINGS

Please refer to Section 6.4.7

5.4.10 SPECIFICATIONS

Outline specifications for the project are to be developed from the latest proposed design. The outline specification shall follow the format described in Section 6.4.8

Chapter 5 – Schematic Design Phase

The Design Consultant shall elaborate and describe any special feature of the School Facilities Project, such as communication systems, security systems, fire-protection systems, special structural systems, etc.

5.4.11 CONSTRUCTION COST ESTIMATE

A Construction Cost Estimate (CCE), based on the Schematic Design documents, is to be developed and submitted by the Design Consultant in the CSI Master Spec or equivalent format. The CCE is the Design Consultant's best estimate of the cost of construction at the time bids are received.

The CCE will be compared to the last approved CCE and to the CCE prepared by the PMF. Any deviations shall be identified by the PMF and reconciled with the Design Consultant.

Should the Schematic Design Phase CCE exceed the latest approved CCE, the Design Consultant and PMF shall immediately identify what action the Design Consultant will take to meet the approved CCE.

5.4.12 SCHEDULE

The PMF will provide a design and construction schedule to the Design Consultant for review and comment.

5.4.13 PROJECT PRESENTATION

Certain School Facilities Projects will require a presentation before the Authority and/or the Client School District. Should this be the case, the Scope of Work (SOW) will include this requirement as a Deliverable.

The purpose of the presentation is to familiarize the appropriate parties with the design of the School Facilities Project and, by doing so, allow them to determine if the project meets their needs and is also within the approved scope and budget.

During this presentation, the Design Consultant should describe its design philosophy and design process used in the development of the final product, the various alternatives considered, any scope changes added during the design process, the latest Construction Cost Estimate and the major milestones for design and construction of the School Facilities Project.

Selected studies and sketches done during the course of the design process may be presented to support the current design solution. Copies of the current design documents should also be available for review.

5.4.14 SUBMISSION CHECKLIST

The Design Consultant must develop a Submission Checklist based upon the project deliverables listed in the SOW. The enclosed list (Figure 5.4.14) is included only as a guide to the format to be used. The Design Consultant's job-specific checklist must be completed and included as the cover sheet of the submission for this phase.

It is important to note that the Design Consultant must include a "Submissions Checklist" with each submission. This list is reflective of the SOW list of deliverables which is included in the Agreement.

Chapter 5 – Schematic Design Phase

The submission of this checklist insures that all of the contracted services have been delivered or are in the process of being addressed by the Design Consultant and will, in fact, be delivered prior to the completion of each phase of the School Facilities Project.

5.4.15 “BOOKLET” FORMAT

All of the above required deliverables shall be presented in an 8 1/2” x 11” bound “booklet” format with reduced site plans, drawings, etc., unless noted otherwise in the SOW. In addition, all drawings shall be submitted on sheet sizes of thirty (30) inches by forty-two (42) inches with all lettering at least one-eighth (1/8) inch high. The number of copies shall comply with the requirements of the SOW.

5.5 Approval

The PMF will distribute the Design Consultant’s Schematic Design submission to all appropriate parties. Written comments from all parties will be compiled by the PMF and forwarded to the Design Consultant.

Within the number of calendar days specified in the Agreement, the Design Consultant must respond to the comments and provide any clarification requested. If required, the Design Consultant shall prepare additional submissions as necessary to develop a solution that satisfies the requirements of the SOW

Final review and acceptance of the documentation by the Authority will constitute formal approval.

5.6 Attachments

Figure 5.4.14 Submission Checklist, Schematic Design Phase

Chapter 5 – Schematic Design Phase

SUBMISSION CHECKLIST

SCHEMATIC DESIGN PHASE

PACKAGE #: _____

DOE PROJECT # _____

Design Consultant: _____

PROJECT NAME _____

SUBMISSION		Required by SOW		Previously Submitted		Enclosed	
		Yes	No	Yes	No	Yes	No
5.4	Narrative Description of School Facilities Project						
5.4.1	Statement of site visit						
5.4.2	Special features description						
5.4.3	Site evaluation						
5.4.4	Borings and surveys						
5.4.5	Reserved						
5.4.6	Design rendering						
5.4.7	Regulatory Agency approvals (refer to Section 6.4.5):						
5.4.5.1	(a) Soil erosion						
5.4.5.2	(a) UCC permit for bldg. const.						
5.4.5.3	(a) Equip. emissions						
	(b) Fuel storage for vehicles						
	(c) Coastal development (CAFRA)						
	(d) Envir. assessment statement						
	(e) Envir. impact statement						
	(f) Waterfront devel. (RIPARIAN)						
	(g) Wetlands develop. permit						
	(h) Underground fuel tank						
	(i) Repair of dam						
	(j) Stream encroachment						
	(k) Realty improvement						
	(l) Wastewater discharge to streams						
	(m) NJPDES						
	(n) Sewage system construction						
	(o) Exemption from sewage sys. Ban						
	(p) Water mgmt. plan for swg. sys.						
	(q) Divert surface water						
	(r) Water lowering						
	(s) Haz. waste storage or disposal						
	(t) Well drilling						

Chapter 5 – Schematic Design Phase

	(u) Construct. water works facility						
	(v) Potable water cross connection						
	(w) Dredge and fill						
	(x) Historic site project building						
5.4.5.4	(a) Certif. of need (hosp. work)						
	(b) Commercial kitchen equipment						
5.4.5.5	(a) Highway access driveway						
	(b) Drain onto hwy.						
	(c) Hwy. util. access						
5.4.5.6	(a) Within D & R Canal						
5.4.5.7	(a) Within Del. River Basin						
5.4.5.8	(a) Construction within Pinelands						
5.4.5.9	(a) Construction within Meadowlands						
5.4.5.10	(a) Corps of Eng. (dredge and fill)						
5.4.5.11	(a) Within FAA jurisdiction						
5.4.5.13	(a) Within the Capital City District						
5.4.8	Confirm Utility Availability for (refer to Section 5.4.6):						
	Sanitary Service						
	Storm Water						
	Domestic Water						
	Gas Service						
	Fire Service						
	Electric Service						
	Telephone Service						
	Cable Service						
5.4.9	Drawings (refer to Section 5.4.7):						
	Coversheet						
	Site plan						
	Site utility plan						
	Plans						
	Elevations						
	Structural dwgs., calc.						
	HVAC dwgs., calcs., economic comparison						
	Plumbing						
	Fire-protection						
	Electrical						
5.4.10	Specifications						
5.4.11	Construction Cost Estimate						
5.4.12	Confirmation of schedule						
5.4.13	Formal presentation of this submission						

5.4.14	This submission checklist						
5.4.15	Booklet Format containing this submission						

Design Consultant Signature

Date

This checklist must be completed by the Design Consultant and included with this submission to document the status of all of the deliverables required by the SOW

(Figure 5.4.14)

DESIGN DEVELOPMENT PHASE

New Jersey Economic Development Authority

CHAPTER 6

DESIGN DEVELOPMENT PHASE

6.1 General

6.2 Reserved for Future Use

6.3 Reserved for Future Use

6.4 Submission Requirements

- 6.4.1 Statement
- 6.4.2 Testing and Surveys
- 6.4.3 Reserved
- 6.4.4 Design Renderings/Sketches
- 6.4.5 Regulatory Agency Approvals
- 6.4.6 Utility Availability
- 6.4.7 Drawing
- 6.4.8 Specifications
- 6.4.9 Construction Cost Estimate
- 6.4.10 Schedule
- 6.4.11 Formal Presentation

6.5. Approvals

6.6 Attachments

Figure 6.4.12 Submission Checklist, Design Development

CHAPTER 6

DESIGN DEVELOPMENT PHASE

Design Development Documents expand on the Schematic Design submission. The submission for this phase takes place when the overall design effort is approximately 50% complete.

6.1 General

- 6.1.1 The Design Consultant shall proceed with Design Development Phase services only upon approval of the Schematic Design Phase documents by the Authority pursuant to Section 5.5.
- 6.1.2 Based on the Schematic Design Documents approved by the Authority Project Officer and any adjustments authorized by the Authority in the program schedule or CCE, the Design Consultant shall prepare Design Development Documents consisting of drawings and other documents to fix and describe the size and character of the School Facilities Project as to architectural, structural, mechanical, and electrical systems, and materials and such other elements as may be appropriate.
- 6.1.3 The Design Consultant shall, for all School Facilities Projects, update the CCE and advise the PMF of any required adjustments.

6.2 Reserved for Future Use

6.3 Reserved for Future Use

6.4 Submission Requirements

The Design Development submission shall consist of a correlated set of documents that comply with the format and standards listed below. All project design concepts and systems (e.g., building configuration, column layout, room layouts, finishes, heating systems) shall be sufficiently defined so that a detailed cost breakdown can be provided by the Design Consultant and the PMF. All specialty items must be substantially defined and incorporated into the design.

"Green" building principles that employ environmentally responsible design and construction practices must be considered and incorporated where appropriate. In addition, they must be consistent with the Standard Offer or other similar documents that list the energy-efficient or renewable-energy technologies managed by the Board of Public Utilities and the New Jersey Department of Environmental Protection's (NJDEP) for the commercial sector.

Emphasis should be given to practices that conserve energy and utilize renewable-energy technologies such as passive and active solar energy, photovoltaics and geothermal heat pump systems. These technologies may be subsidized through a number of programs, including buy downs per kilowatt-hour or low-interest loans. For more information, the Design Consultant shall contact the local utility, the renewable-energy technology company, the energy efficiency service provider or the NJDEP, Office of Innovative Technology and Market Development (609-984-5418).

Each proposed product, practice or system recommended must be evaluated and compared to traditional systems. The following information must be presented in order to determine the cost effectiveness of the

Chapter 6 – Design Development Phase

alternative systems: total cost, pay back period, maintenance costs and the identification of any financial incentive available from the appropriate utility to install energy-efficient and renewable-energy technologies. The following information must be presented and calculated in order to determine the environmental effectiveness of the alternative systems: the kilowatts saved or avoided and their respective air emissions avoided, e.g., CO₂, NO_x and So_x. In some cases, tradable air emissions credits may be available to the school.

The Design Development drawings and specifications prepared by the Design Consultant are to be submitted to the PMF for review based upon the approved Schematic Design documents. This submission shall include the development and amplification of the approved Schematic Design documents to completely satisfy the scope, budget and intent of the School Facilities Project. No deviations from the approved Schematic Design drawings and specifications will be permitted without prior written approval of the Authority.

Unless defined otherwise in the Agreement, ten (10) copies of each of the following documents shall be submitted.

6.4.1 STATEMENT

The Design Consultant must submit a statement confirming that the Design Consultant has (a) visited the site, (b) visually inspected the proposed location of major facilities, and (c) is satisfied that all survey data is reasonably accurate as to apparent surface outcropping, streams, trees, undergrowth, and other features that present unusual conditions which could adversely affect the design and construction cost of the School Facilities Project.

When a Design Consultant is given access to “As-Built” or “Record Consultant must physically verify them in the field to determine if the drawings are accurate in those areas affecting this School Facilities Project.

6.4.2 TESTING AND SURVEYS

When testing, surveys or other investigative work is required by the SOW, the Agreement will provides for an allowance to cover the cost of these services. The Design Consultant will be responsible to subcontract for all work identified in the Allowance, provided the Design Consultant cannot provide the services “in-house.”

The Design Consultant must solicit technical proposals and fees from three (3) contractors or consulting firms for all subcontracted work.

The Subconsultant or Subcontractor proposals must be evaluated by the Design Consultant, and a contract negotiated and awarded to the firm offering the best services for the fee after review and written approval of the PMF.

The Design Consultant will be entitled to a maximum markup of 5% on Subconsultant or Subcontractor costs. This maximum 5% markup shall be used by the Design Consultant to advertise, evaluate, contract, monitor, and supervise the Subconsultant's or Subcontractor's work. The Design Consultant must submit invoices to the Authority when the work is completed.

The Design Consultant may subcontract any work according to the following guidelines:

Chapter 6 – Design Development Phase

A Subconsultant or Subcontractor hired by the Design Consultant must be pre-qualified with the Authority for the discipline required. If there is no pre-qualification category for the discipline of a specific Subconsultant, such Subconsultant must be approved by the Authority prior to being awarded a contract.

Any funds remaining in the Allowance after the work is completed will belong to the Authority.

6.4.3 RESERVED

6.4.4 DESIGN RENDERING/SKETCHES

It is recommended that the preliminary layout of any renderings required be submitted at this time for approval. Design "sketches" (free hand, isometrics, etc.) may also be submitted to convey the design concept of special areas such as lobbies, special fenestration features, etc. (See Section 8.4.3 for specifics of any formal renderings if required in the SOW.)

6.4.5 REGULATORY AGENCY APPROVALS

This section presents a compendium of State permits or approvals which may be required for construction projects.

If the School Facilities Project is subject to regulation by any of these Regulatory Agencies or any other Regulatory Agency not listed here, the Design Consultant must contact all of the appropriate Regulatory Agencies upon project initiation and include in its Design Development Submission copies of all applications submitted. If permits have been issued at the close of this phase, include copies of all approvals obtained and describe in writing, restrictions imposed upon the School Facilities Project, if any, as well as any additional cost implications beyond those envisioned in the Initial Construction Cost Estimate (CCE). The New Jersey Department of Environmental Protection (NJDEP) also publishes two documents that are helpful in its permitting process:

NJDEP Permits, Licenses, Approvals and Certifications - July, 1999
NJDEP One Stop Brochure

Unless otherwise directed, all permit fees will be paid by the Authority. The Design Consultant will be required to prepare all permit applications for submittal by the Authority.

6.4.5.1 NEW JERSEY DEPARTMENT OF AGRICULTURE

- (a) Soil Erosion And Sediment Control Plan
Certification (N.J.S.A. 4:24-1 et. seq.)

Project Type: Land disturbance of over 5,000 sq. ft.

6.4.5.2 NEW JERSEY DEPARTMENT OF COMMUNITY AFFAIRS

- (a) Uniform Construction Code Permit
(N.J.S.A. 52.27d-119 et. seq.)

Project Type: Building construction.

6.4.5.3 NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

- (a) Permit To Construct, Install Or Alter Control Apparatus and/or Equipment (N.J.S.A. 4:24-1 et. seq.)

Project Type: Equipment which emits, or controls the emission of substances (except air and water) into the air.

- (b) Permit To Construct/Installer/Alter and Operate Apparatus or Equipment for the Storage and Transfer of Service Station Fuels. (N.J.S.A. 26-2C-9.2 et. seq.)

Project Type: Storage tanks used for transferring motor vehicle fuels into vehicles.

- (c) Coastal Area Facility Review Act Permit (CAFRA) (N.J.S.A. 13:19-1 et. seq.)

Project Type: Coastal and waterfront development.

- (d) Environmental Assessment Statement (Executive Order #215)

Project Type: New construction projects or additions exceeding 25% or in excess of one million dollars initiated or funded by the State and not subject to: CAFRA; Municipal Wastewater Treatment Financing Program or projects requiring a full Environmental Impact Statement pursuant to the National Environmental Policy Act.

- (e) Environmental Impact Statement (Executive Order #215)

Project Type: New construction projects or additions exceeding 25% or in excess of five (5) million dollars initiated or funded by the State and having a land disturbance in excess of five (5) acres and not subject to: CAFRA; Municipal Wastewater Treatment Financing Program.

- (f) Waterfront Development Permit (N.J.S.A. 12:5-3 et. seq.)

Project Type: Coastal and waterfront development (Riparian).

- (g) Wetlands Permit (N.J.S.A. 13:9A-1 et. seq. or N.J.S.A. 13:98-1 et. seq.)

Project Type: Coastal and waterfront development or development in or around freshwater wetlands.

- (h) Underground Storage Tank Permit (N.J.S.A. 10A-21 et. seq.)

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Project Type: Installation, substantial modification and closure of underground storage tank.

- (i) Permit For Construction or Repair of A Dam
(N.J.S.A. 7:20-1 et. seq.)

Project Type: subsurface disposal systems for schools, hospitals, nursing homes, camping grounds, etc.

- (j) Stream Encroachment (N.J.S.A. 7:8-3.15 et. seq.)

Project Type: Construction within a flood plain or a channel of a stream.

- (k) Certification of Realty Improvements for Schools, Hospitals, Nursing Homes, Camping Grounds, Etc. (N.J.S.A. 58:11-23 et. seq.)

Project Type: Subsurface disposal systems for schools, hospitals, nursing homes, camping grounds, etc.

- (l) Discharge Allocation Certificate (N.J.S.A. 58:10A-1 et. seq.)

Project Type: Any facility intending to discharge wastewater into surface waters.

- (m) Permit To Discharge Wastewater to the Surface Water or Ground Water of the State Of New Jersey (NJPDES Permit) (N.J.S.A. 58:10A-1 et. seq.)

Project Type: Any facility which discharges more than 2000 gallons of wastewater per day into surface or ground waters. (If less than 2,000 g.p.d., see Section 6.4.5.12)

- (n) Permit to Build, Install, Modify Or Operate A Sewage System (N.J.S.A. 58:10A-1 et. seq.)

Project Type: Sewage facilities.

- (o) Exemption from Sewage System Connection or Extension Ban (N.J.S.A. 13:98-1 et. seq.)

Project Type: sewage tie-in to sewage facilities prohibited from accepting new tie-ins.

- (p) Water Quality Management Plan Consistency Determination (N.J.S.A. 58:11A-1 et. seq.)

Project Type: Sewage systems.

- (q) Permit To Divert Surface Or Subsurface Waters (N.J.S.A. 58A-1 et. seq.)

Project Type: Water diversion of over 100,000 gal. day from any pond, stream or lake.

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- (r) Water Lowering Permit (N.J.S.A. 23:5-29 et seq.)

Project Type: Water diversion, shut-off, or draw-down from any pond, stream or lake.

- (s) Hazardous Waste Facility Registration (N.J.S.A. 13:1-1 et. seq.)

Project Type: Facilities for storing, treating or disposing of hazardous waste.

- (t) Well Drilling Permit (N.J.S.A. 58:4A-140 et. seq.)

Project Type: Well drilling. Provide water analysis to comply with physical, chemical and bacteriological requirements of the NJDEP, Bureau of Safe Drinking Act. N.J.A.C. 7:10-11.1 et. seq. "Standard for the Construction of Public Community Water Systems."

Note: If a Geothermal Heat Pump system is proposed, you need to fill out the "Closed Loop Well Permit Condition" form attached to the back of the Well Drilling Permit.

- (u) Approval to Construct, Modify and Operate Water Works Facilities Including Sources, Treatment, And Water Distribution Facilities (N.J.S.A. 58:12A-1 et. seq.)

Project Type: Potable water facility.

- (v) Permit To Install or Maintain A Physical Connection Between Approved Public Potable Supply and Non-Approved Supply (N.J.S.A. 58:12A-1 et. seq.)

Project Type: Water facilities providing a connection between public and private water supplies.

- (w) Water Quality Certification (Dredge & Fill Projects) (N.J.S.A. 58:10A-1 to 13 et. seq.)

Project Type: Dredge and fill projects.

- (x) Historic Sites Council Review

Project Type: Historical sites/buildings.

6.4.5.4 NEW JERSEY DEPARTMENT OF HEALTH

- (a) Certificate Of Need for Health Facilities (N.J.S.A. 26:H-1 et. seq.)

Project Type: Health care facilities.

- (b) Retail Food Establishment Letter of Approval (N.J.S.A. 26:1A-7 et. seq.)

Project Type: Facilities containing commercial type kitchens.

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6.4.5.5 NEW JERSEY DEPARTMENT OF TRANSPORTATION

- (a) Access Driveway Permit (N.J.S.A. 27:7-1 et. seq.)

Project Type: Facilities having access to a N.J. highway.

- (b) Drainage Permit (N.J.S.A. 27:7-1 et. seq.)

Project Type: Facilities installing or relocating drainage onto or along a New Jersey highway.

- (c) Utility Opening Permit (N.J.S.A. 27:7-1 et. seq.)

Project Type: Opening a State Highway to install or repair a utility.

6.4.5.6 DELAWARE AND RARITAN CANAL COMMISSION

- (a) Delaware and Raritan Canal Commission Review (N.J.S.A. 13:13A-1 et. seq.)

Project Type: All construction within the Commissions jurisdiction.

6.4.5.7 DELAWARE RIVER BASIN COMMISSION

- (a) Delaware River Basin Commission Review (N.J.S.A. 58:18-18 et. seq.)

Project Type: All construction affecting water resources within the Delaware River Basin.

6.4.5.8 PINELANDS COMMISSION

- (a) Pinelands Commission Review (N.J.S.A. 13:18-1 et. seq.)

Project Type: All new development within the State Pinelands Area.

6.4.5.9 HACKENSACK MEADOWLANDS DEVELOPMENT COMMISSION

- (a) Hackensack Meadowlands Development Commission Review (N.J.S.A. 13:17-1 et. seq.)

Project Type: All projects within Hackensack Meadowlands District.

6.4.5.10 ARMY CORPS OF ENGINEERS

- (A) Army Corps of Engineers Dredge and Fill Permits

Project Type: Dredge and fill operations in waterways under the jurisdiction of the Corps.

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6.4.5.11 FEDERAL AVIATION AUTHORITY

- (a) Federal Aviation Authority Airport Approach Permits

Project Type: dredge and fill operations in waterways under the jurisdiction of the Corps.

6.4.5.12 COUNTY BOARD OF HEALTH

- (a) On-Site Sewage Disposal System Certification (N.J.S.A. 58:11-23 et. seq.) (N.J.A.C. 7:9A et. seq.)

Project Type: Projects utilizing on-site septic system handling less than 2000 gallons of sewage per day [for projects having more than 2000 gal./day see 6.4.5.3 (m)].

6.4.5.13 CAPITAL CITY REDEVELOPMENT CORPORATION

- (a) Impact Statement Review (N.J.S.A. 52:9q-9 et. seq.)

Project Type: All construction projects within Capital City District of Trenton.

6.4.6 UTILITY AVAILABILITY/APPROVAL

The Design Consultant must obtain written verification that off-site or on-site utility facilities exist and can service the School Facilities Project from the applicable authorities. Letters pertaining to sanitary, storm, water, fire-protection, gas, electrical, telephone and cable services must be obtained which:

Confirm by field test the availability of adequate service including specific pressures available, consumption or loads and approximate date of service.
Design Consultant shall submit copies of the test results.

Establish a firm commitment by the utility, or in the case of on-site utilities, the Client School District, to provide the service.

Contain statements regarding any special regulations and/or requirements which, should they not be included in the Contractual Documents, would result in significant redesign and/or extra cost of construction by having to be included at a later date.

Generally state the extent of work to be done by the provider of the utility and whether there will be any fees to be paid by the Client School District or Contractor.

6.4.7 DRAWINGS

All final working drawings, including architectural, structural, mechanical, and electrical drawings, shall be original on mylar sheets prepared in accordance with sound drafting practice and uniform in size.

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Sheet size shall be 24" x 36" or 30" x 42" except for small work, alterations, etc., when 8 1/2" x 11" or 11" x 17" sheets may be used if approved by the PMF. If required, to permit a plan without match lines, a 36" x 48" sheet may be used. All drawings shall be the same size. All lettering shall be at least one-eighth (1/8) inch high suitable for reproduction. "Background" drawings (reproducible mylars) of floor plans, etc., furnished to the Subconsultants by the Design Consultant shall be free from all distortions and shall be of equivalent quality as original mylars.

DRAWING DESIGNATIONS

Prefix designations used with a number to determine the category of each sheet shall be as follows:

SW -- Site Work

L -- Landscape

A -- Architectural

S -- Structural

P -- Plumbing

E -- Electrical

M -- Mechanical

HV -- Heating & Ventilating

HVAC -- Heating, Ventilating & Air Conditioning

FP -- Fire Protection

SP -- Sprinklers

EL -- Elevators

EAC -- Electrical Heating and/or Air Conditioning (when applicable.)

DRAWING ORDER

Complete working drawings for a School Facilities Project shall be bound in a set with the unnumbered "Cover Title Sheet" as the first sheet of the set. "Cover Title Sheet" and "Index & Legends" may be combined on one sheet. Drawings shall be bound in the order shown in the following list with all drawings within each group arranged in numerical sequence. Unless specific exceptions are granted in writing by the PMF, work categories shall not be combined on any drawings. Separate drawings shall be required for each work category such as architectural, structural, electrical, plumbing, fire-protection, etc.

Cover Sheet

Index & Legends

Site Plans, Grading & Landscaping

Architectural Plans, Boring Plans & Logs

Architectural Elevations & Sections

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Structural Drawings, Schedules & Details

Plumbing

Fire Protection

Heating, Ventilating & Air Conditioning

Electrical

DRAWING COVER SHEET

The cover sheet shall adequately identify the School Facilities Project and shall indicate the package number, index, location of the School Facilities Project including the municipality and county, the Design Consultant and other consultants.

SITE PLAN/SURVEY

Site plans shall show new and existing contours, controlling grades, adjacent drainage, floor elevation of buildings and the relation of the buildings to existing or proposed roads, streets, rail sidings, utilities, etc.

Contours shall be at intervals necessary to relate proposed facilities to existing facilities and/or terrain.

Site drawings (at working drawing scale) shall include:

Property boundaries, streets and general area surrounding the site.

Base line and location of proposed structure.

Both original and proposed finished grades within the construction area, either by spot elevations or by contour but of sufficient number or interval of contour to adequately show the intended concept and extent of grading proposed consistent with the ADA Regulations and the New Jersey Uniform Construction Code.

Elevations of finished floors.

Existing and proposed walks, roads, parking areas, and fencing.

Location of existing and proposed utility lines for water, gas, electrical, sanitary sewer, well, and/or septic system as applicable.

Indicate areas reserved for future expansion of the building, parking lot, etc., if applicable.

Schedule showing the actual design quantities of grading and seeding, paving and fencing, extension of utilities, roads, and sidewalks, etc.

Soil-erosion control drawings if required.

Soil boring plan including a complete log of subsurface conditions.

SITE UTILITY PLAN

Site Utility Plan shall indicate the complete development of the intended site utility systems. All inverts and pipe sizes shall be included.

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All utility systems are to be shown on one drawing. The scale shall be the same as the site plan to identify relationships. The drawings must show the buildings, roads, walks, etc., and the run of the proposed utilities. Existing utilities that have a bearing on the School Facilities Project shall be included. The site utility plan shall clearly indicate the following:

- Sanitary disposal system with inverts.
- Storm water disposal system with inverts.
- Domestic water-supply system and/or off-site supply with inverts.
- Fire-protection water-supply system with inverts.
- Gas-supply system.
- Electric service system and off-site service connection.
- Site lighting.
- Other site utility systems as may be appropriate, e.g., site heating, chilled water, fire alarm, security system.
- Tank locations and sizes.

PLANS

- Plans including overall dimensions, room dimensions and functional use of each room.
- Doors and windows.
- Room finish schedule.
- Location of all fire walls and fire separation walls with appropriate U.L. design numbers.
- Egress Study of each floor indicating all fire walls, stairs and horizontal exits.
- Design data for required flame spread and smoke development ratings of materials.
- ADA and Barrier Free requirements.
- One-quarter (1/4) inch minimum scale plans for special areas.

ELEVATIONS

- Mass relationship, wall heights, architectural design treatment, and use of materials.

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TYPICAL WALL SECTIONS

- Indicate foundations
- Floor systems
- Wall construction
- Windows
- Ceiling systems
- Structural elements
- U.L. design numbers for all assemblies

STRUCTURAL DESIGN

- Provide structural calculations including seismic zone, design loads and allowable material stresses used in design.
- Include structural plans of all foundation, floor and roof framing systems.
- Submit subsoil investigation data (if not included on site plan).
- The structural details must include fire-protection requirements and relationship of framing members to architectural fabric.

HEATING, VENTILATING AND AIR CONDITIONING

A narrative description of the system and controls in sufficient detail to allow a proper understanding of its operation. This description must include items such as the system controls, number of zones, fuel supply, etc. It must also include the distribution system incorporated such as single or dual ducts, unit ventilators, cabinet heaters, radiant panels, valance system, window units, baseboards, etc.

Alternative technologies that reduce energy consumption for heating and cooling must be investigated and included as an option. One technology that may be investigated is geothermal heat pump systems. Information on the feasibility and design of the system must be presented, including total cost for the system, the pay back period, maintenance costs, financial incentives and any other special considerations.

Detailed heating and cooling calculations. (Include type of energy source, the number location and estimated capacity of equipment, and the indoor/outdoor design temperature to be used.)

Boiler and chiller sizing calculations.

Fuel oil plans including all utility rooms, chases, etc. Indicate location of all HVAC equipment and all major piping and all duct runs in the utility rooms and all floors. All major ducts shall be sized. All unusual and non-standard arrangements shall be shown.

Include a roof plan showing location of roof mounted equipment such as exhaust fans, cooling tower, HVAC equipment, etc.

Include equipment schedules indicating all HVAC equipment by symbol designation, name and estimated size or capacity in BTU, GPM, gallons, etc. The boilers must be completely defined. Further development of these schedules will be a requirement of the Construction Document Phase.

Indicate any seismic considerations if applicable.

Provide a piping distribution and riser schematic to show concept. All equipment must be conceptually indicated. Also provide conceptually complete duct riser diagrams (supply and exhaust); sizes are required.

Provide calculations and a narrative description of the operation of any exhaust system designed into the HVAC system. If the smoke exhaust system is a stand-alone system, this information shall be included in the fire-protection drawings.

PLUMBING DRAWINGS

Alternative technologies that reduce energy consumption for heating water must be investigated and included as an option. Active solar-design systems such as solar hot-water heaters with a pumping system must be presented, including total cost for the system, the pay-back period, maintenance costs, financial incentives and any other special considerations.

Provide floor plans including all utility rooms, chases, etc. Indicate the location of all equipment associated with plumbing, all major piping in the utility room and lower floors, pipe sizes and location of piping. Indicate connections of the site utility piping. Also, indicate all unusual or non-standard piping arrangements.

Separate riser diagrams shall be shown for fuel oil/gas service, sanitary drain and vent system, hot- and cold-water distribution system and storm-drainage system. Applicable equipment connections shall be identified on all schematic and riser diagrams. BTUH input, pipe sizes, WSFUs, DFUs, slope, valves, drainage points, area, distance, etc., as it relates with each riser. For natural gas and LPG services include specific gravity and maximum permitted pressure drop.

Include a fixture schedule listing each fixture, description, trap and vent sizes, DFU values, WSFU values, and hot- and cold-water connection pipe sizes.

Plumbing fixtures and detail elevations conforming to the ADA Regulations and NJ Barrier Free Regulations (N.J.A.C. 5:23) and NSPC Appendix D Water Conservation Requirements.

Installation of detail of fuel oil storage tanks including ground cover, venting, tie down, etc., in sufficient detail to ensure compliance with regulatory agencies.

FIRE-PROTECTION DRAWINGS

Provide plans and a narrative of all smoke evacuation systems.

When a sprinkler system is required it shall be designed in accordance with NFPA 13. The drawings must contain the following information:

A complete layout of sprinkler system including coordination with ceilings, lighting, HVAC diffusers and other obstructions.

Ceiling construction.

Full height cross section.

Location of walls.

Location of partitions.

Occupancy of each area or room.

Location and size of concealed spaces, closets, and bathrooms.

Any questionable small enclosures in which no sprinklers are to be installed.

Size of city main in street, pressure and whether dead-end or circulating and, if dead-end, direction and distance to nearest circulating main, and city main test results (see B-2-1 Appendix to NFPA-13). Drawing shall indicate available water pressure and flow rate including date and time of test.

Other sources of water supply, with pressure or elevation.

Make, type, and nominal orifice size of sprinklers.

Temperature rating and location of high-temperature sprinklers.

Total area protected by each system on each floor.

Number of sprinklers on each riser per floor.

Make, type, model, and size of alarm or dry-pipe valve.

Make, type, model, and size of preaction or deluge valve.

Kind and location of alarm bells.

Total number of sprinklers on each dry-pipe system, preaction system, combined dry-pipe/preaction system or deluge system.

Approximate capacity in gallons of each dry-pipe system.

Pipe type and schedule of wall thickness.

Nominal pipe size and center to center dimension of sprinklers.

Location and size of riser nipples.

Type of fittings and joints and location of all welds and bends.

Type and location of hangers, sleeves, braces, and methods of securing sprinklers when applicable.

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All control valves, check valves, drain pipes, air compressors, jockey pumps, fire pumps, and test connections.

Size and location of hand hose, hose outlets, and related equipment.

Detail of service entrance and complete sprinkler equipment.

Underground pipe size, length, location, weight, material, point of connection to city main; the type of valves, meters, and valve pits; and the depth that top of the pipe is laid below grade and fire-department connection.

Provision for flushing.

When the equipment is to be installed as an addition to an existing system enough of the existing system shall be indicated on the plans to make all conditions clear.

Specifications shall indicate the type of system and the manufacturers (or equal) of each type of equipment including:

Valves

Pipe

Hangers & Supporters

Sprinkler Heads

Siamese

Fire Pump

Jockey Pump

Alarms

Fire Service & Connection to Water Mains

Connection to Automatic Fire Alarm Systems

Air Compressor

The Design Consultant shall include the following statement on the plans and in the specifications:

“If the sprinkler contractor prepares shop drawings that differ in design from those supplied by the Design Consultant, the contractor shall submit them to the New Jersey Economic Development Authority for approval prior to fabrication and installation of the system.”

All Automatic Sprinkler Systems required for buildings of Use Group A, B, E, I, M, R or existing buildings of Use Group H required to meet the requirements of the New Jersey Uniform Fire Code Subchapter 4 shall be supervised by one of the 4 methods listed below.

Approved central-station system in accordance with NFPA 71.

Approved proprietary system in accordance with NFPA 72D.

Approved remote-station system in accordance with NFPA 72C.

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Approved supervisory service in accordance with NFPA 72A which will cause the actuation of an audible appliance at a constantly attended location.

All automatic Sprinkler Systems in other Use Groups shall be supervised by any one of the four methods listed above or by the locking the valves open.

Exceptions:

- (a) Underground gate valves with roadway boxes.
- (b) Limited Area Sprinkler Systems.
- (c) Buildings of Use Group R (4) four stories or less in height, with systems designed and installed in accordance with NFPA 13R shall be supervised in accordance with NFPA 13R.

ELECTRICAL DRAWINGS

Alternative technologies that reduce electric energy consumption must be investigated and included as an option. One of these technologies includes photovoltaics. Information on the feasibility and design of the system must be presented, including total cost for the system, the pay-back period, maintenance costs, financial incentives and any other special considerations. If a photovoltaics system is feasible and recommended, electrical drawings should be developed for the system.

Electrical drawings shall include lighting, power, communications, fire-alarm and specialized systems. Lighting features must indicate typical lighting arrangements, types of fixtures proposed, light intensities, emergency and egress lighting.

Power, communications and specialized systems arrangement must be provided in sufficient detail to clearly identify requirements and to indicate the means of satisfying the design criteria.

Riser diagrams, showing service equipment, feeders and panels other than branch circuits, must be shown; however, wire sizes, current demand factors, and switch and panelboard descriptions need not be given at the time.

Location, capacity, space requirements of all major items or equipment must be indicated.

Indicated the estimated size of the service equipment (switch board), main disconnect.

Panel schedules will be a requirement of the Construction Documents Phase.

Location and/or method of emergency power equipment and source must be indicated.

Chapter 6 – Design Development Phase

6.4.8 SPECIFICATIONS

Design Development specifications shall provide the type and character of materials to be utilized, and any other data not indicated on the Design Development plans but required to properly provide engineering and architectural clarification.

Outline specifications are to be in the modified CSI format described in Section 6.4.7 and shall include:

Brief specification outlining the technical sections to be included in final specification.

Any substitutions of items or finishes shall be listed as proposed alternatives.

Any proprietary or sole-source equipment, material, or item must be specifically identified with reasons sufficiently detailed to support its uniqueness and warrant approval. (Please refer to Section 6.4.7 for additional information.)

6.4.9 CONSTRUCTION COST ESTIMATE

A Construction Cost Estimate (CCE), based on the Design Development Documents, is to be developed and submitted by the Design Consultant in the CSI Master Spec or equivalent format. The CCE is the Design Consultant's best estimate of the cost of construction at the time bids are received.

The CCE will be compared to the last approved CCE and to the CCE prepared by the PMF. Any deviations shall be identified by the PMF and reconciled with the Design Consultant.

Should the Design Development CCE exceed the latest approved CCE, the Design Consultant and PMF shall immediately identify what action the Design Consultant will take to meet the approved CCE.

6.4.10 SCHEDULE

The PMF will provide a design and construction schedule.

6.4.11 FORMAL PRESENTATION

Certain School Facilities Projects will require a presentation before the Authority and/or Client School District. Should this be the case, the SOW will include this requirement as a Deliverable.

The purpose of the presentation is to familiarize the appropriate parties with the design of the School Facilities Project, and by doing so, allow them to determine if the project meets their needs and is also within the approved scope and budget.

During this presentation, the Design Consultant should describe its design philosophy and design process used in the development of the final product, the various alternatives considered, any scope changes added during the design process, the latest Construction Cost Estimate and the major milestones for design and construction of the School Facilities Project.

Chapter 6 – Design Development Phase

Selected studies and sketches done during the course of the design process may be presented to support the current design solution. Copies of the current design documents should also be available for review.

6.4.12 SUBMISSION CHECKLIST

The Submission Checklist (Figure 6.4.12) must be completed by the Design Consultant and submitted as the cover sheet of this submission.

6.5 APPROVALS

The PMF will distribute the Design Consultant's Design Development submission to all appropriate parties. Written comments from all parties will be compiled by the PMF and forwarded to the Design Consultant.

Within the number of calendar days specified in the Agreement, the Design Consultant must respond to the comments and provide any clarification requested. If required, the Design Consultant must prepare additional submissions as necessary to develop a solution that satisfies the requirements of the SOW.

Final review and acceptance of the documentation by the Authority Project Officer will constitute formal approval.

6.6 ATTACHMENTS

Figure 6.4.12 Submission Checklist, Design Development Phase

Chapter 6 – Design Development Phase

SUBMISSION CHECKLIST

DESIGN DEVELOPMENT PHASE

PACKAGE #: _____
Design Consultant: _____

DOE PROJECT # _____
PROJECT NAME _____

SUBMISSION	Required by SOW		Previously Submitted		Enclosed	
	Yes	No	Yes	No	Yes	No
6.4.1 Statement of site visit						
6.4.2 Testing and surveys						
6.4.3 Reserved						
6.4.4 Renderings						
6.4.5 Regulatory Agency approvals (include itemized list)						
6.4.6 Confirm utility availability for:						
Sanitary service						
Storm water						
Domestic water						
Gas service						
Fire service						
Electric service						
Telephone service						
Cable service						
6.4.7 Drawings:						
Coversheet						
Site plan						
Site utility plan						
Plans						
Elevations						
Structural dwgs., calc.						
HVAC dwgs., calcs., eco., comparison						
Plumbing						
Fire-Protection						
Electrical						
6.4.8 Specifications						
6.4.9 Cost Estimate Review and Update						
6.4.10 Confirmation of schedule						
6.4.11 Formal presentation of this submission						
6.4.12 This submission checklist						

Design Consultant Signature

Date

This checklist must be completed by the Design Consultant and included with this submission to document the status of all of the deliverables required by the SOW

(Figure 6.4.12)

CONSTRUCTION DOCUMENT PHASE

New Jersey Economic Development Authority

CHAPTER 7

CONSTRUCTION DOCUMENT PHASE

7.1 General

7.2 Check Set (60% CD) Submission Requirements

- 7.2.1 Construction Cost Estimate
- 7.2.2 Construction Schedule Review
- 7.2.3 Submission Checklist

7.3 Approvals of Check Set Submission

7.4 Final Review (95% CD) Submission Requirements

- 7.4.1 Testing and Surveys
- 7.4.2 Reserved
- 7.4.3 Design Renderings
- 7.4.4 Regulatory Agency Approvals
- 7.4.5 Utility Availability
- 7.4.6 Drawings
- 7.4.7 Specifications
- 7.4.8 Construction Cost Estimate
- 7.4.9 Construction Schedule Review
- 7.4.10 Project Presentation
- 7.4.11 Plan Review/Scope of Work Compliance Statement
- 7.4.12 Submission Checklist

7.5. Approvals of Final Review Submission

7.6 Permit Application (100% CD) Submission Requirements

- 7.6.1 Regulatory Agency Approvals
- 7.6.2 Utility Availability Confirmation
- 7.6.3 Drawings
- 7.6.4 Specifications
- 7.6.5 Construction Cost Estimate
- 7.6.6 Construction Schedule Review
- 7.6.7 Plan Review/Scope of Work Compliance Statement
- 7.6.8 Submission Checklist

7.7. Approval of Permit Application Submission

7.8 Attachments

CHAPTER 7

CONSTRUCTION DOCUMENT PHASE

The Construction Document Phase (CD) expands on the approved Design Development submission as described in Chapter 6 to the degree necessary to adequately reflect the scope, cost and schedule of the School Facilities Project and is comprised of three distinct submissions: 60% CD completion, 95% CD completion (Final Review Set) and 100% CD completion (Permit Application).

7.1 General

- 7.1.1 The Design Consultant shall proceed with the Construction Documents Phase only upon approval of the Design Development Phase documents by the Authority pursuant to Section 6.5.
- 7.1.2 Based on the approved Design Development Documents and any further adjustments in the scope of the School Facilities Projects or in the CCE authorized by the Authority Project Officer, the Design Consultant shall prepare Construction Documents consisting of drawings and specifications setting forth in detail the requirements for the construction of the School Facilities Project.
- 7.1.3 The Design Consultant shall submit for review, check sets of Construction Documents when 60 percent, 95 percent, and 100 percent complete, including Specifications and updates to the CCE.
- 7.1.4 The Design Consultant shall submit to the governmental agencies having jurisdiction the required number of sets of completed Construction Documents so as to initiate the process of plan review and checking that must precede the issuance of building permits. Final application for building permits will also be initiated by the Design Consultant. The Authority Project Officer shall pay all governmental fees required for the permit process.
- 7.1.5 The Design Consultant shall, for all School Facilities Projects, update the CCE and advise the Authority Project Officer of any adjustments to previous preliminary statements of probable construction cost indicated by changes in requirements or general market conditions.

7.2 Check Set (60% CD) Submission Requirements

All documents required in the Construction Document Phase are to be submitted to the PMF at the 60% CD submission (Check Set Submission) at a level of completeness appropriate to verify that the Construction Documents are 60% complete. Additionally, the construction cost and schedule must be verified with this submission. Unless defined otherwise in the Agreement, ten (10) copies of the documents shall be submitted to the PMF.

Chapter 7 – Construction Document Phase

7.2.1 CONSTRUCTION COST ESTIMATE

A Construction Cost Estimate, based on the Construction Documents, is to be developed and submitted by the Design Consultant in the CSI Master Spec or equivalent format. The CCE is the Design Consultant's best estimate of the cost of construction at the time bids are received.

The CCE will be compared to the last approved CCE and to the cost estimate prepared by the PMF. Any deviations shall be identified by the PMF and reconciled.

Should the Construction Documents CCE exceed the latest approved CCE, the Design Consultant and PMF shall immediately identify what action the Design Consultant will take to meet the approved CCE.

7.2.2 CONSTRUCTION SCHEDULE REVIEW

The PMF will provide an updated edition of the Construction Schedule. The Design Consultant must review and confirm.

7.2.3 SUBMISSION CHECKLIST

The Design Consultant must develop a Submission Checklist (Check Set) based upon the project Deliverables listed in the SOW. The enclosed list (Figure 7.2.3) is included only as a guide as to the format to be used. The Design Consultant's completed job specific checklist must be included as the cover sheet of this phase's submission to ensure Agreement conformance.

7.3 Approvals of Check Set Submission

The PMF will distribute the Design Consultant's 60% CD Submission to all appropriate parties for review. Written comments from all parties will be compiled by the PMF and forwarded to the Design Consultant for inclusion in the 95% CD Submission.

7.4 Final Review (95% CD) Submission Requirements

The following documents, if required in the SOW, are to be submitted to the PMF at the 95% CD submission (Final Review Submission). If any of these documents, with the exception of the final drawings and specifications, were previously approved by the Authority, they need not be re-submitted unless specifically requested by the PMF.

These submissions are necessary to ensure that program requirements are met, and that the Authority's design standards have been incorporated into the School Facilities Project. Unless defined otherwise in the Agreement, ten (10) copies of each of the following documents shall be submitted. The submissions shall be complete to the point where they are ready for bidding and shall consist of, but not be limited to, the following.

7.4.1 TESTING AND SURVEYS

Please refer to Section 6.4.2

7.4.2 RESERVED

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7.4.3 DESIGN RENDERINGS

If required in the SOW, the Design Consultant shall furnish an original color rendering having a minimum size 20"x30", excluding the matte and frame. A narrative project description and project fact sheet shall be submitted along with the final rendering. Preliminary layouts of all renderings shall be submitted to the PMF for approval of the renderings subject matter, station point, and composition.

- 1 - 20"x30" Original Color Rendering, Framed and Matted and Glazed
- 1 - 4"x5" Color Copy Negative
- 10 - 8"x10" Color Prints
- 1 - 4"x5" Black & White Negative
- 10 - 8"x10" Black & White (Glossy Prints)
- 6 - 35mm Color Slides
- 1 - Narrative Description, Including Pertinent Project Data

7.4.4 REGULATORY AGENCY APPROVAL

If the necessary approvals have not been furnished during previous phases or if modifications have been made requiring further approval, the Design Consultant must submit updated documentation at this time.

7.4.5 UTILITY AVAILABILITY

If prior approvals have not been furnished during previous phases or if modifications have been made requiring further approval, the Design Consultant must submit letters or signed statements confirming availability and/or approval of the following, if applicable:

- Sanitary Service
- Storm Service
- Domestic Water Service
- Gas Service
- Fire Service
- Electric Service
- Telephone Service
- Cable Service

7.4.6 DRAWINGS

At the close of the Construction Document Phase the Design Consultant is to submit the required number of complete sets of working drawings as called for in the SOW for final review to the PMF. The Construction Drawings shall be complete, outlining in sufficient detail all aspects of the work. The drawings must be in accordance with the standards described in Chapter 6 and completed to the point that they are ready for bidding purposes. One set of the drawings is to bear the signature and seal of the Design Consultant to indicate that in its professional opinion the drawings meet the standards of the Design Consultant's profession as well as those established by law.

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7.4.7 SPECIFICATIONS

At the close of the Construction Document Phase, the Design Consultant shall submit ten (10) copies, or a number specified in the Agreement, of complete sets of specifications as called for in the SOW for final review to the PMF. The specifications shall meet the following criteria:

FORMAT

- Combined cover and title page.
- Index of Contract Documents.
- Instructions to Bidders and General Conditions.
- Supplementary General Conditions.
- Division 1 thru 16 following the CSI or Master Spec format.

COVER PAGE

The cover page shall include the package title, School Facilities Project names, contract numbers, and other information as determined by the PMF and Design Consultant.

INDEX

The Index shall state that the specifications are arranged in accordance with the Construction Specifications Institute (CSI) or Master Spec numbering system and format. Section numbering shall be discontinuous and all numbers shall not appear in the index if they are not used for a project. The index shall also list all of the documents found in the specifications.

INSTRUCTIONS TO BIDDERS AND GENERAL CONDITIONS

A current copy of the Authority's standard Instructions to Bidders and General Conditions will be given to the Design Consultant to reproduce and include in the specifications.

SUPPLEMENTARY GENERAL CONDITIONS

The Supplementary General Conditions shall include requirements not specifically addressed in the General Conditions as well as any project-specific requirements and/or conditions.

PROPRIETARY SPECIFICATIONS

The use of proprietary specifications is prohibited; therefore, whenever a "brand name" item is specified the Design Consultant must list by name at least three (3) comparable manufacturers followed by the words "or equal." For minor components, one manufacturer may be named followed by the words "or equal."

To ensure that the word "equal" cannot be misinterpreted in the course of bidding, the Design Consultant must thoroughly describe in the technical specifications all essential performance and/or physical

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features which must be incorporated into the specified item or system in order for it to meet its minimum functional needs and space limitations. Minor features of the preferred products that do not have an impact upon the products performance for this use shall not be specified as required criteria for bidding.

Exception to this policy may be granted, including restricting bids to certain select manufacturers, subject to the following stipulations:

Conditions

No known readily available products, other than the specified, are capable of providing the salient physical, functional, and/or other characteristics essential to the minimal needs of the Client School District.

Where existing systems are being extended (fire-alarm, etc.), single-system integrity can only be preserved, or compatibility assured, by resorting to the designated products.

Authorization

The Design Consultant must request, in writing to the PMF, authorization to use a proprietary specification at least thirty (30) days before completion of the Contract Documents. This request shall include a draft version of the proposed specification sections, and the relevant justification for this action.

Within ten (10) days of receipt, the request will be reviewed, and if approved, the Authority Project Officer will grant authorization in writing to proceed.

Upon receipt of authorization, the Design Consultant shall include in the Construction Documents the name of the desired manufacturer to be used by the contractor in its base bid.

Specification Division 1 Thru 16

The Design Consultant shall write the project specifications using the standard Construction Specifications Institute (CSI) Master Spec or other acceptable similar industry standard format. Sections not related to or used in a specific project are not to be included in the text.

The specification page format shall be in accordance with the CSI Manual of Practice, Part III, Chapter 5. The package number shall be in the lower right hand corner of the page while the date shall be in the left-hand corner. The page number shall be at the bottom center of each page.

The first page of all sections shall have at the top the division number, section number and package number.

When referring to the Client School District, please use the reference “Authority.”

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When referring to an individual within the Authority who has the authority to waive, add or delete a material portion of the Contract, please use the reference "Executive Director, Authority."

When referring to an Authority representative or Design Consultant involved in inspection/quality control, please use the reference "Design Consultant."

The Design Consultant should refer to the Authority's "Design Guidelines" while writing the specifications to insure that all of the subject matter discussed in the "Design Guidelines" have been addressed. The "Design Guidelines" are organized in the CSI format. NOTE: The "Design Guidelines" are in development by the Authority and will not apply at this time.

Sections within a division are to be divided into four parts: General, Products, Execution and Measurement and Payment. The parts are further divided at a minimum as follows:

GENERAL:

- Requirements
- Related requirements
- Quality Assurance
- Submittals
- Schedule of References

PRODUCTS:

- Materials
- Accessories
- Fabrication

EXECUTION

- Conditions
- Performance
- Installation
- Preparation
- Safety Procedures
- Protection
- Inspection

MEASUREMENT AND PAYMENT

The Design Consultant must state whether each element of work is to be measured (e.g. each, lf, sf, sy, etc.) or is to be included as part of the Contractor's lump sum bid. The Design Consultant must state whether payment for each element of work will be based on the unit price or as part of the lump sum amount.

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7.4.8 CONSTRUCTION COST ESTIMATE

A Construction Cost Estimate, based on the Construction Documents, is to be developed and submitted by the Design Consultant in the CSI Master Spec or equivalent format. The CCE is the Design Consultant's best estimate of the cost of construction at the time bids are received.

The CCE will be compared to the last approved CCE and to the cost estimate prepared by the PMF. Any deviations shall be identified by the PMF and reconciled with the Design Consultant.

Should the Construction Documents CCE exceed the latest approved CCE, the Design Consultant and PMF shall immediately identify what action the Design Consultant will take to meet the approved CCE.

7.4.9 CONSTRUCTION SCHEDULE REVIEW

The PMF will provide an updated edition of the Construction Schedule. The Design Consultant must review and confirm.

7.4.10 PROJECT PRESENTATION

Certain School Facilities Projects will require a presentation before the Authority and/or Client School District. Should this be the case, the SOW, will include this requirement as a Deliverable.

The purpose of the presentation is to familiarize the various parties with the final design of the School Facilities Project and, by doing so, allow them to determine if the project meets their needs and is also within the approved scope and budget.

During this presentation, the Design Consultant should describe its design philosophy and design process used in the development of the final product, the various alternatives considered, any approved scope changes added during the design process and the Final CCE.

Selected studies and sketches done during the course of the design process may be presented to support the final design solution. Final design documents should also be available for review.

The presentation should be approximately one hour in duration.

7.4.11 PLAN REVIEW/SOW COMPLIANCE STATEMENT

The Design Consultant must include in this submission a copy of its written response to any comments raised by the Authority Project Officer, the PMF or any other reviewer during their review of the 60% CD (Check Set) submission.

The Design Consultant shall also review the SOW, schedule and budget, and if any variances exist, the Design Consultant shall prepare a detailed description of those variances and recommendations for conformance with the SOW if it has not been changed by the Authority.

Chapter 7 – Construction Document Phase

7.4.12 SUBMISSION CHECKLIST

The Design Consultant must develop a Submission Checklist (Final Review) based upon the project deliverables listed in the SOW. The enclosed list (Figure 7.4.12) is included only as a guide as to the format to be used. The Design Consultant's completed job specific checklist must be included as the cover sheet of this phase's submission to ensure Agreement conformance.

7.5 Approvals of Final Review Submission

The PMF will distribute the Design Consultant's 95% CD submission to all appropriate parties. Written comments from all parties will be compiled by the PMF and forwarded to the Design Consultant.

Within the number of calendar days specified in the Agreement, the Design Consultant must respond to the comments and provide any clarification requested. If required, the Design Consultant must prepare additional submissions as necessary to develop a solution that satisfies the requirements of the SOW

Final review and acceptance of the documentation by the Authority Project Officer will constitute formal approval. Upon approval of the 95% CD submission (Final Review), the Project will move into the 100% CD Phase (Permit Application).

7.6. Permit Application (100% CD) Submission Requirements

Upon receiving the comments from all parties, the Design Consultant must revise the 95% CD Submission and prepare it for submittal to the PMF. The following documentation is required in Permit Submission.

7.6.1 REGULATORY APPROVALS

Prepare and deliver, to the appropriate Regulatory Agency, a completed UCC permit application and all required documents. Copies of the application must be forwarded to the PMF.

Provide any information required for the previous submission if it has not already been provided.

7.6.2 UTILITY AVAILABILITY CONFORMATION

Provide any information required for the previous submissions if it has not already been provided.

7.6.3 DRAWINGS

Prepare and deliver, to the appropriate Regulatory Agency, signed and sealed plans to meet the requirements for construction permit purposes.

Deliver to the PMF the original mylar drawings for the purpose of reproduction for bidding along with electronic files on disk.

7.6.4 SPECIFICATIONS

Provide signed and sealed specifications to meet the requirements for construction permit purposes.

Chapter 7 – Construction Document Phase

Deliver to the PMF the remainder of the specifications for bidding purposes.

7.6.5 CONSTRUCTION COST ESTIMATE

The Design Consultant must prepare a final cost estimate for review against the approved CCE and confirm in writing its agreement with the CCE, or state in writing its specific reasons of disagreement.

7.6.6 SCHEDULE REVIEW

The Design Consultant must assist the PMF in reviewing the previously submitted construction schedule, taking into consideration the season of the year and bidding climate at the time the project will be going out to bid.

7.6.7 PLAN REVIEW/SOW COMPLIANCE STATEMENT

The Design Consultant must include in this submission a copy of its written response to any comments raised by the Authority Project Officer, the PMF or any other reviewer during their review of the 95% CD (Final Review) Submission.

The Design Consultant must also review the SOW, schedule and budget, and if any variances exist, the Design Consultant must prepare a detailed description of those variances and recommendations for conformance with the SOW if it has not been changed by the Authority.

7.6.8 SUBMISSION CHECKLIST

The Design Consultant must develop a Permit Application Submission Checklist (100% CD) based upon the Deliverables listed in the SOW. The enclosed list (Figure 7.6.8) is included only as a guide as to the format to be used. The Design Consultant's completed job specific checklist must be included in this submission.

7.7. Approval of Permit Application Submission

During this phase of the project the Authority Project Officer will complete a Bid Clearance Form. This form contains various project information such as the CCE for the each School Facilities Project, the estimated bid due date, and the financial data.

7.8 Attachments

- Figure 7.2.3 Submission Checklist, Construction Documents – Check Set (60% CD)
- Figure 7.4.12 Submission Checklist, Construction Documents - Final Review (95% CD)
- Figure 7.6.8 Submission Checklist, Construction Documents - Permit Application (100% CD)

Chapter 7 – Construction Document Phase

SUBMISSION CHECKLIST

CONSTRUCTION DOCUMENTS – CHECK SET (60% CD)

PACKAGE #: _____
Design Consultant: _____

DOE PROJECT # _____
PROJECT NAME _____

SUBMISSION	Required by SOW		Previously Submitted		Enclosed	
	Yes	No	Yes	No	Yes	No
7.2 Drawings						
7.2 Specifications						
7.2.1 Construction Cost Estimate						
7.2.2 Construction Schedule Review						
7.2.3 This submission checklist						

Design Consultant Signature

Date

This checklist must be completed by the Design Consultant and included as the coversheet of this submission to document the status of all of the deliverables required by the SOW

(Figure 7.2.3)

Chapter 7 – Construction Document Phase

SUBMISSION CHECKLIST

CONSTRUCTION DOCUMENTS - FINAL REVIEW (95% CD)

PACKAGE #: _____
Design Consultant: _____

DOE PROJECT # _____
PROJECT NAME _____

SUBMISSION	Required by SOW		Previously Submitted		Enclosed	
	Yes	No	Yes	No	Yes	No
7.4.1 Testing and surveys						
7.4.2 Reserved						
7.4.3 Framed rendering and photographs						
7.4.4 Regulatory Agency approvals (include an itemized list specific to this project using 6.4.5 as a guide)						
7.4.5 Confirm utility availability for all required utilities						
7.4.6 Drawings (one set signed and sealed)						
7.4.7 Specifications						
7.4.8 Construction Cost Estimate						
7.4.9 Construction Schedule Review						
7.4.10 Presentation of this submission						
7.4.11 Plan Review/SOW Compliance Statement						
7.4.11 This submission checklist						

Design Consultant Signature

Date

This checklist must be completed by the Design Consultant and included as the coversheet of this submission to document the status of all of the deliverables required by the SOW

(Figure 7.4.12)

Chapter 7 – Construction Document Phase

SUBMISSION CHECKLIST

CONSTRUCTION DOCUMENT - PERMIT APPLICATION (100% CD)

PACKAGE #: _____
Design Consultant: _____

DOE PROJECT # _____
PROJECT NAME _____

SUBMISSION	Required by SOW		Previously Submitted		Enclosed	
	Yes	No	Yes	No	Yes	No
7.6.1 UCC PERMIT APPLICATION						
7.6.2 All outstanding approvals						
7.6.3 (a) Signed and sealed plans						
(b) Original mylars						
7.6.4 (a) Signed and sealed specifications						
(b) Specifications for bidding						
7.6.5 Construction Cost Estimate						
7.6.6 Confirmation of Schedule						
7.6.7 Plan review/SOW compliance statement						
7.6.8 This submission checklist						

Design Consultant Signature

Date

This checklist must be completed by the Design Consultant and included with this submission to document the status of all of the deliverables required by the SOW

(Figure 7.6.8)

BIDDING AND CONTRACT AWARD

New Jersey Economic Development Authority

CHAPTER 8

BIDDING AND CONTRACT AWARD

8.1 Pre-Bid Conference/Mandatory Site Visit

8.2 Addendum

8.3 Opening of Bids

8.4 Bid Review for Contract Award

8.5 Contract Preparation

CHAPTER 8

BIDDING AND CONTRACT AWARD

If the Work includes Construction Administration Services, the Authority, at its sole option, may issue to the Design Consultant a Notice-to-Proceed for the Construction Phase. If such Notice-to-Proceed is issued, the Design Consultant shall proceed with the services required to be delivered in the Construction Phase, as set forth in Chapters 8-11 of this Manual.

The Bidding and Contract Award Phase commences following approval of all submissions required in the Construction Documents Phase and the issuance of a Notice-to-Proceed for the Construction Phase.

8.1 Pre-Bid Conference/Mandatory Site Visit

The Design Consultant will be required to attend a Pre-Bid Conference. The Pre-Bid Conference provides an opportunity for the Contractors bidding a job to review and discuss the Construction Documents and to discuss the general nature and scope of the School Facilities Project with the Design Consultant, the PMF and the Client School District. Certain renovation projects or projects with unique conditions will also require a site visit. The PMF will arrange and conduct this conference.

The PMF will record and distribute minutes of all meetings.

8.2 Addendum

When bidders raise issues that may affect the bid price, the Design Consultant shall immediately develop an addendum to clarify or review the bid documents. The Design Consultant shall not provide oral interpretations or information to prospective bidders that will affect the bid price. The addendum will be submitted to and issued by the Authority in accordance with the time constraints noted below.

Addendum shall be lettered in sequence starting with Addendum 1. Addendum will be issued to the bidders no later than one week before the bid opening, unless otherwise required or directed by the Authority. Addendum issued within one week before bid opening shall be sent via Registered Mail, fax or overnight mail and is to be confirmed by phone.

The cover page of an Addendum shall be similar to the specification cover page but shall be titled Addendum 1 (2, 3, 4, etc.) to specifications for (Package...). The date is the date of issuance of the Addendum.

The following statement must appear on the second page of the Addendum:

"This Addendum is issued for the purpose of amending certain requirements of the Construction Documents, as noted hereinafter, and is hereby made part of and incorporated in full force as part of the Construction Documents. Unless specifically noted or specified hereinafter all work shall conform to the applicable provisions of the Construction Documents."

All items shall be clearly identified as to contract and section and in the same sequential order as the specifications.

Chapter 8 – Bidding and Contract Award Phase

8.3 Opening of Bids

The Design Consultant must be present at the opening and reading of bids in order to tabulate them with the PMF. The opening of bids generally will be held at the Authority's main office.

8.4 Bid Review for Contract Award

The Design Consultant, in conjunction with the PMF, will assist in reviewing the proposals from the responsive bidders.

8.5 Contract Preparation

The Authority will prepare the necessary Construction Contract and forward it to the Contractor. It is the responsibility of the Contractor to sign the Construction Contract and return it along with the Performance Bond and Insurance Certificates directly to the Authority. The Design Consultant, the PMF and the Authority Project Officer will receive copies of the Construction Contract after it has been fully executed by the Authority.

CONSTRUCTION ADMINISTRATION PHASE

New Jersey Economic Development Authority

CHAPTER 9

CONSTRUCTION ADMINISTRATION PHASE

9.1 Construction Administration

9.2 Pre-Construction Meeting

9.3 Project Meetings

9.3.1 Agenda

9.3.2 Minutes

9.3.3 Format of Minutes

9.4. Conformed Drawings

9.5 Contractor's Invoicing and Payment Process

9.6 Testing

9.7 Shop Drawings

9.8 Request for Information

9.9 Construction Progress Schedule

9.9.1 Construction Progress Schedule

9.10 Change Orders

9.10.1 Scope Changes

9.10.2 Construction Change Orders

9.10.3 Field Changes

9.11 Construction Photographs

9.12 Field Observations

9.13 Submission Checklist

9.14 Attachments

Figure 9.14 Submission Checklist

CHAPTER 9

CONSTRUCTION ADMINISTRATION PHASE

9.1 Construction Administration

The Design Consultant and its subconsultants shall, unless otherwise specified in the SOW, provide site administration during the construction of the School Facilities Project at least weekly. The services required of such site administration shall include, but not be limited to, periodic field observations sufficient to verify the quality of construction and the conformance with the Contract Documents. The field observation visit shall normally be conducted in conjunction with weekly job meetings unless noted otherwise in the contract.

9.2 Pre-Construction Meeting

The initial project meeting will be scheduled and chaired by the PMF. The meeting will be attended by the Contractor, the Authority Project Officer, the Design Consultant, and the Client School District's representatives. The PMF shall be responsible for recording and issuing minutes of this meeting.

The meeting will as a minimum address the following topics:

- Administrative requirements of the Construction Contract Documents.

- Unique site conditions (location of trailers, entrance and access roadways, etc.).

- Project Construction Schedule.

- Summary of Contract Award/Documentation of Project Personnel. The Project Directory shall be completed by the PMF and distributed to all parties.

- Procedures for submittal of project schedule, schedule of values breakdowns, shop drawings, material/Subcontractor approvals, etc.

- Testing Procedures.

- Special Client School District requirements (security constraints, shutdowns, etc.)

- Availability of utilities/Need for temporary services.

- Correspondence/Communications.

- Close-Out Procedures.

9.3 Project Meetings

9.3.1 AGENDA

Regularly scheduled job meetings will be held at the job site weekly unless otherwise notified. The PMF will chair the meeting, transcribe and distribute job meeting minutes for every job meeting. Agenda will include, but not be limited to, the following:

- Review previous minutes including the cover sheet.

- Corrections to previous minutes.

- Review of Contractor Safety program.

Chapter 9 – Construction Administration Phase

Review of Hazardous Materials, if any.

Job progress review for past week.

Job forecast for next two weeks.

Delivery dates for long lead items (doors, hardware, etc.)

Review of construction schedule and progress rating.

Review test reports to see that testing requirements noted in specifications are met.

Progress photos when required in the General Conditions (these should accompany each monthly invoice for payment).

Review status of as-built drawings which should be kept current. This will be used as a justification for payments.

Review code inspection reports and scheduled inspections.

Review Shop Drawing (SD) log and update.

Review Contract Request for Information (RFI) log, both resolved as well as pending.

Review Contract Change Requests (CCR) log, both approved as well as pending.

Review Change Order (CO) log, both approved as well as pending.

Review invoice payments for contractors.

The PMF is to identify the party responsible for resolution.

Job site inspection.

9.3.2 MINUTES

The PMF is responsible for the preparation and distribution of minutes of meetings within seven (7) days of the meeting.

9.3.3 FORMAT OF MINUTES

The approved format for the minutes of job meetings will be established by the Authority Project Officer and will, at a minimum, contain the following information:

Corrections to the minutes of previous meeting.

Supplemental paragraphs will include pertinent data on items discussed.

The concluding statement of the minutes will be in the form of a summary including the following information:

- Statements of action to be taken by the appropriate parties.
- Specific information on any of the following items which may be delaying construction progress.
 - Progress schedule (CPM or other).

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- Approvals for Subcontractors, materials, Schedule of Values, change orders, color schedules, shop drawings, etc.
- The person preparing the minutes must sign the minutes. The lower left-hand corner of the final sheet must also include the complete distribution list. The date, time and location of the next job meeting will be included.

Minutes are to be on 8 1/2" x 11" paper and the duplicating methods must be used that will produce legible and reproducible copies.

Written field reports in the format established by the Authority are to be completed by the Design Consultant and submitted to the PMF following the field observation visit.

9.4. Conformed Drawings

Within thirty (30) days after the award of the Construction Contract, or as otherwise established by the Authority Project Officer, the Design Consultant must prepare Conformed Drawings in the number of copies as previously indicated for final documents (and one set of reproducible mylars) after incorporating:

Addendum information.
Accepted alternatives.
Changes incorporated in the Construction Contracts.

The conformed drawings must reflect all of the above data. These revised drawings shall be identified by showing justifications in the "Revision Box" and shall be issued for construction use. Only those drawings revised between advertising and Construction Contract award are to be revised and issued at this time.

Conformed Drawings are to be utilized in conjunction with actual construction and shall be revised to reflect field changes as a basis for the "as-built" drawings. It is the Design Consultant's responsibility to review on a regular basis the changes noted in order to monitor the revising of these drawings with the actual construction.

9.5 Contractor's Invoicing and Payment Process

After award of the construction contract, the Contractor will submit a Schedule of Values. The Design Consultant shall review the submission to insure that it is in sufficient detail to enable adequate evaluations for future payments to the Contractor. Upon approval by the Design Consultant, it will be forwarded to the PMF for its review and recommendation for approval. A copy of the approved Schedule of Values will be returned to the Design Consultant for record purposes. The PMF will make distribution.

The Schedule of Values will contain an itemized breakdown of all major Construction Contract elements or components together with bond, insurance and applicable general conditions. Each item appearing on the Schedule of Values will be broken down into cost for labor, material, equipment, etc., either by lump sum or unit price.

Rejection of the Schedule of Values either by the Design Consultant or the PMF will require correction and resubmission by the Contractor.

The approved Schedule of Values serves as the basis for payment of respective line items.

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9.6 Testing

The Design Consultant is responsible to review the reports submitted by the testing laboratory and recommend to the Authority in writing the acceptance/rejection of the material or product tested.

9.7 Shop Drawings

The Design Consultant shall check and approve or otherwise act upon shop drawings within fourteen (14) days for conformity with the Construction Contract Documents. The Design Consultant has the authority to reject shop drawings that are not in conformity with the Construction Contract Documents. If there are exceptions or rejections taken, the Design Consultant shall identify the areas of non-compliance.

If drawings are returned stamped by the Design Consultant "REVISE AND RESUBMIT," the Contractor shall resubmit them to the Design Consultant until an "APPROVED" or "APPROVED AS NOTED" stamp is affixed by the Design Consultant. If the drawings are returned by the Design Consultant stamped "APPROVED AS NOTED," no further return submittal is necessary. Of the five (5) sets received by the Design Consultant, two (2) will be retained by the Design Consultant and two (2) sent to the PMF. The remaining shall be returned to the Contractor for its distribution. All Contractors will maintain a shop drawing file at the construction site for reference by the Design Consultant and the PMF.

The two (2) sets retained by the Design Consultant are to be forwarded to the PMF upon completion of the project for use by the Client School District.

9.8 Requests for Information (RFI)

The Design Consultant shall respond to all Contractor requests for information (RFI's) generated during the Construction Administration Phase. Responses must be issued in a timely manner to the PMF for distribution. The Design Consultant shall sequentially number all RFI's and maintain a log to document the status of all

9.9 Construction Progress Schedule

9.9.1 CONSTRUCTION PROGRESS SCHEDULE

The PMF is responsible for developing and maintaining a progress schedule using a network diagram to serve as the master plan and schedule for the construction work to be included in the bidding documents. After the award, the PMF will meet with the Contractor, Design Consultant, and other personnel involved to develop a more detailed schedule. After review and approval, the CPM Schedule will become the construction progress schedule for the School Facilities Project. The PMF shall continually update the schedules as required. Should changes, field conditions, deliveries, etc., alter the progress of construction, new schedules will be issued.

No requisition from the Contractor shall be paid until the Contractor's progress under the CPM schedule is approved. Cost-loaded CPM Schedules will be utilized as the basis for payment. The data creating this cost event loading is to be provided by the Contractor to the PMF for inclusion.

Chapter 9 – Construction Administration Phase

9.10 Change Orders

The Design Consultant must review and process all Change Orders in accordance with the Construction Contract Documents. The following specifics, however, are highlighted.

9.10.1 SCOPE CHANGES

When the Client School District requests a change to the original Contract Documents, it is the responsibility of the Design Consultant to advise the PMF to request any increase in the SOW and to evaluate the cost of scope changes. If, in accomplishing this, it involves costs for the Design Consultant, it will be the Design Consultant's responsibility to notify the PMF of these costs. The Design Consultant shall review and make recommendations within seven (7) days on all scope changes not requiring in-depth analysis or supplementary drawings.

When directed by the PMF to proceed with a scope change, the Design Consultant shall prepare the necessary documents to clearly define the work to be done under the scope change. It is the PMF's responsibility to submit those documents for code compliance review if in the opinion of the Design Consultant the changes involve alteration to the means of egress, life safety, light or ventilation.

9.10.2 CONSTRUCTION CHANGE ORDERS

Construction Change Orders are the result of field conditions which in turn require the Design Consultant to prepare whatever is necessary for the Contractor to prepare the necessary Construction Change Request (CCR). If, in the opinion of the Design Consultant, the changes involve alteration to the means of egress, life safety, light or ventilation, the changes must be submitted for code compliance review.

The Design Consultant shall review the CCR and make recommendations within seven (7) days on those CCR's not requiring in-depth analysis or supplementary drawings or data. For CCR's involving complex issues the Design Consultant and PMF will mutually establish an appropriate review period.

These CCR's will involve a review by the PMF to determine if the change constitutes a potential error or omission on the part of the Design Consultant.

Approved CCR's will be combined and issued in a formal Change Order to the Construction Contract which must be approved by the Authority Project Officer.

9.10.3 FIELD CHANGES

The Design Consultant is not authorized to make any construction changes in the field without written approval of the Authority Project Officer even if they are minor in nature and are done without a change in the Construction Contract price.

9.10.4 LOGS

The PMF shall be responsible for assigning sequential numbers to all CCR's. For tracking purposes, a CCR number shall be assigned to all Authority-initiated changes as well as all Contractor-initiated claims. Following appropriate reviews, a CCR may ultimately be approved, rejected, or voided. CCR's will also

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be classified as to cause, including added scope, unforeseen condition, design error, and design omission.

Additionally, the PMF shall be responsible for assigning sequential numbers to all Change Orders, which shall only be assigned to approved items. The PMF shall maintain a log to track disposition of CCR's and to track approved Change Orders.

9.11 Construction Photographs

When required in the Construction Contract Documents, the Contractor shall submit progress photographs of the buildings, giving two (2) views of each building structure within the project as selected by the Design Consultant and taken from the same points each month. The photographs shall be submitted with each monthly application for payment until the exterior is completed.

The photograph shall be 8" x 10" and each photograph shall bear the date of the exposure, the project number and the description of the work, Contractor, the Design Consultant and photographic orientation.

9.12 Field Observations

The Design Consultant shall prepare and submit a written report to the PMF at the close of each site visit. Additionally, copies of the field report written on the day of a job meeting shall be affixed to the respective job meeting minutes.

9.13 Submission Checklist

The Design Consultant must complete the submission checklist (Figure 9.13) and submit it upon completion of the conformed drawings.

Chapter 9 – Construction Administration Phase

SUBMISSION CHECKLIST

CONSTRUCTION ADMINISTRATION PHASE

PACKAGE #: _____
Design Consultant: _____

DOE PROJECT # _____
PROJECT NAME _____

SUBMISSION	Required by SOW		Previously Submitted		Enclosed	
	Yes	No	Yes	No	Yes	No
9.5 Prepare and deliver conformed drawings						

Design Consultant Signature

Date

This checklist shall be completed by the Design Consultant and included with its submission to document the status of all of the deliverables required by the SOW

(Figure 9.13)

PROJECT CLOSE-OUT

New Jersey Economic Development Authority

CHAPTER 10

PROJECT CLOSE-OUT

10.1 Responsibilities

10.2 Commencement

10.3 Development of Punchlists and Inspection Reports

10.4 Correction/Completion of Punchlist Items

10.5 Determination of Substantial Completion

10.6 Issuance of a "Temporary Certificate of Occupancy"

10.7 Initiation of Final Contract Acceptance Process

10.8 Submission of Close-out Documentation

- 10.8.1 "As-Built" and "Record Sets" of drawings
- 10.8.2 Operating Manuals, Warranties, etc.
- 10.8.3 Final Insurance Transfer
- 10.8.4 Submission Checklist

10.9 Final Payment

- 10.9.1 Contractor's Final Payment
- 10.9.2 Design Consultant's Final Payment

CHAPTER 10

PROJECT CLOSE-OUT

Project Close-Out constitutes the final activity of the Construction Administration Phase.

10.1 Responsibilities

The PMF has the full responsibility for the planning, scheduling, and execution of project close-out activities.

The Design Consultant is responsible to cooperate with the PMF in the planning, scheduling, and execution of project close-out activities.

10.2 Commencement

The documentation of Project Close-Out is initiated at the pre-construction meeting with the distribution to the Contractor of a Project Close-Out Documentation List. This document is included by the Design Consultant in the project specifications and advises the Contractor which documents it is responsible to provide to the Authority prior to close-out and final payment.

10.3 Development of Punchlists and Inspection Reports

Upon written notification by the Contractor to the PMF that the Contract work is complete, pre-tested and ready for inspection, the PMF will request a final code inspection. Project Close-Out should include pre-final and final inspections, final payment and similar actions evidencing completion of the work. Other specific requirements are included in the Construction Contract Documents. As used in this Manual, the pre-final and final inspections include the resolution of all Contract and code requirements.

Upon receiving a written request from the Contractor, a pre-final and subsequently a final inspection shall be arranged by the PMF, who will also arrange for the following people to attend the pre-final and final inspections: Client School District representatives, Design Consultant, code inspectors and Authority representatives, and the appropriate Contractor/Subcontractor(s).

The purpose of pre-final and final inspections is as follows:

- To ensure that the work has been completed in substantial conformance with the approved plans, specifications, changes and related documentation, and conformance with applicable construction codes.

- To ensure that all installed equipment works properly. While the inspection may show the equipment works, the inspection report must (1) be qualified when the equipment/system cannot be tested in the appropriate climatic season and (2) provide a scheduled date for testing during the appropriate season.

- To have required certificates of conformance and tests, certified analyses, laboratory tests, etc., on hand.

Immediately after the code inspection is completed, code inspection reports will be prepared and distributed to the Contractor's field representative at the site. A separate Punchlist will be developed to identify items noted by the Design Consultant, the PMF, the Authority Project Officer and the Client School District.

At the conclusion of the pre-final inspection, the PMF will prepare an official consolidated Punchlist with input from and signed by all parties present at the pre-final inspection including the Contractor identifying the work remaining and/or needing correction. If any of the designated signatories declines to sign, the reason must be stated on the Punchlist.

The Construction Administration Phase of a School Facilities Project is not considered closed out until the Construction Contract has been closed out.

10.4 Correction/Completion of Punchlist Items

The PMF is responsible for verifying correction/completion of the work identified on the consolidated Punchlist. The verification process shall include representation from the Design Consultant, the PMF, the Authority and the Client School District.

10.5 Determination of Substantial Completion

Substantial completion means that a pre-final Construction Contract and code inspection was conducted, but that additional work (the Punchlist) may remain to be performed or corrected that can be accomplished at a later date without interference to the Client School District. It also means the date warranties and guarantees begin, or a combination of the above.

The difficulty occurs in determining when Substantial Completion occurs. There are two principal elements required for finding of Substantial Completion; namely, a high percentage of completion and the availability of the School Facilities Project for its intended use.

High Percentage of Completion

Although at least 95% of the work must be completed for Substantial Completion, the prudent approach is that there is no rigid formula as to the percentage of work which must be accomplished before Substantial Completion may be said to be achieved. Lower percentages have been deemed adequate. The amount of payments to the Contractor may be considered as evidence of Substantial Completion. Work with important or material omissions or technical defects or deficiencies should not be considered substantially complete. However, Punchlist items may not prevent an item from being considered completed for percentage of completion purposes.

Availability for Use

To support a claim of Substantial Completion, the Contractor must (a) establish that the School Facilities Project is capable of adequately serving its intended purpose and (b) show that all code deficiencies cited have been corrected, addressed and accepted by the code inspection agency such that the conditions for issuance of a TCO/Approval prevail. Thus, where air conditioning is required for the operation of equipment, Substantial Completion does not occur until air conditioning is functional.

If at the conclusion of the pre-final Inspection, the Design Consultant determines that the contractual completion status of the Construction Contract supports the condition of Substantial Completion, the Design Consultant forwards a completed Certificate of Substantial Completion Form along with the Punchlist and other documentation to the PMF for approval.

Chapter 10 – Project Close-Out

The PMF shall then request the issuance of a Temporary Certificate of Occupancy (TCO) from the code inspection agency.

10.6 Issuance of a "Temporary Certificate of Occupancy"

When Uniform Construction Code items are resolved, the Code Inspection Agency will issue a TCO. This TCO may be issued for the entire School Facilities Project or for a specific area or portion of the project.

10.7 Initiation of Final Contract Acceptance Process

When the Punchlist items are completed and signed off as being completed or otherwise resolved, and a TCO has been issued, the PMF shall initiate a Final Contract Acceptance form.

10.8 Submission of Close-Out Documentation

10.8.1 AS-BUILTS AND RECORD SETS OF DRAWINGS

The Contractor shall keep their Construction Contract drawings up to date at all times by recording the final location of any changes in the work, pipes, traps, conduits, ducts, footings, anchors, etc.

Upon completion of the School Facilities Project, the Contractor shall submit its As-Built drawings to the Design Consultant through the PMF with Contractor's certification as to the accuracy of the information prior to final payment. All As-Built drawings submitted by the Contractor shall be entitled As-Built above the Title Block and dated.

The Design Consultant shall acknowledge acceptance of the As-Built drawings by signing a transmittal indicating that it has reviewed them and that to the best of the Design Consultant's knowledge they reflect the As-Built conditions as they exist.

Upon receipt of all of the As-Built drawings from the Contractor, the Design Consultant shall obtain the original mylars from the PMF and transfer the As-Built conditions to the original mylars to reflect RECORD conditions.

The Design Consultant shall place the following statement on the original drawings: "The As-Built information added to this drawing has been supplied by the Contractor. The (Architect) (Engineer) does not assume the responsibility for its accuracy other than conformity with the design concept and general adequacy of the "As-built" information to the best of the (Architect's) (Engineer's) knowledge."

Unless noted otherwise in the Design Consultant Agreement, the Design Consultant shall complete the Record Set within 90 days of receipt.

Upon completion, the Design Consultant shall deliver the Record Set original mylars back to the PMF who will acknowledge its receipt in writing. The Design Consultant may produce a set of prints or reproducibles of those drawings. The original mylars shall become the property of the Authority. Final payment to the Design Consultant is subject to receipt of all documents including the Record Set of drawings.

Chapter 10 – Project Close-Out

10.8.2 OPERATING MANUALS, WARRANTIES, SHOP DRAWINGS, ETC.

The Contractor shall forward to the Design Consultant all maintenance and Operating Manuals, Guarantees, Testing and Balancing Reports, Shop Drawings, Specific Warranties (Waterproofing, Boiler Inspection Certificates, Elevator Inspection Certificates, etc.) The Design Consultant shall review all such documents for accuracy, completeness and Contract compliance and shall transmit them along with one set of all of the approved shop drawings that the Design Consultant has retained during the construction of the School Facilities Project to the PMF for distribution. The transmittal shall include a complete listing of all documents by name.

10.8.3 INSURANCE TRANSFER

Upon completion of the work, the PMF shall complete an Insurance Transfer form and return it to the Authority Project Officer within fourteen (14) days. This form transfers the School Facilities Project from the Builders Risk Insurance policy to the Client School District's insurance program.

10.8.4 SUBMISSION CHECKLIST

The Submission Checklist (Figure 10.8.4) shall be completed by the Design Consultant and submitted as the cover sheet of this submission to the PMF at the completion of Project Close-out to insure that all of the Design Consultant's contractual responsibilities have been completed.

10.9 Final Payment

10.9.1 CONTRACTORS FINAL PAYMENT

When all Punchlists have been completed and all required demonstrations and instructions of mechanical and control systems have been provided, the PMF will initiate a Final Construction Contract Acceptance form and distribute it to the Design Consultant and Contractor for signature. All parties must return the signed documents within ten (10) working days. Upon receipt of the signed form the PMF will forward the Contractor's final invoice to the Authority for payment.

10.9.2 DESIGN CONSULTANT'S FINAL PAYMENT

Upon completion of the Construction Administration Phase of the issuance of a Certificate of Occupancy, the final invoice of the Design Consultant may be submitted to the PMF for review, recommendation and forwarding to the Authority Project Officer for approval and signature. The PMF will verify that the Design Consultant has satisfied all aspects of the Contractual Documents by initiating a Final Acceptance of Design Consultant Agreement form. Under no circumstances will the final invoice be processed until all contractual requirements have been satisfied. Upon signature by the PMF and Authority Project Officer, final payment will be authorized.

10.10 Final Performance Evaluations of the Contractor

The Design Consultant shall complete and submit the final Contractor performance evaluations to the Authority Project Officer.

Chapter 10 – Project Close-Out

SUBMISSION CHECKLIST

PROJECT CLOSE-OUT

PACKAGE #: _____
Design Consultant: _____

DOE PROJECT # _____
PROJECT NAME _____

SUBMISSION	Required by SOW		Previously Submitted		Enclosed	
	Yes	No	Yes	No	Yes	No
10.8.1 Record Set of drawings						
10.8.2(a) Maintenance and Operating Manuals						
10.8.2(b) Guarantees						
10.8.2(c) Testing and balancing reports						
10.8.2(d) Boiler inspection certificates						
10.8.2(e) Elevator inspection report						
10.8.2(f) Shop drawings						
10.8.4 Submission Checklist						
10.9.2 Contractor Invoice for final payment						

Design Consultant Signature

Date

This checklist shall be completed by the Design Consultant and included as the coversheet of this submission to document the status of all of the deliverables required by the SOW

(Figure 10.8.4)

POST OCCUPANCY REVIEW PHASE

New Jersey Economic Development Authority

CHAPTER 11

POST OCCUPANCY REVIEW PHASE

11.1 Warranty Period

11.2 Warranty Inspection

11.3 Product Inspection

CHAPTER 11

POST OCCUPANCY REVIEW PHASE

Post Occupancy Review Phase occurs during the first year following Substantial Completion of the School Facilities Project.

11.1 Warranty Period

The Design Consultant shall assist the PMF in the resolution of the Contractor's obligation under the one-year warranty and guarantee period for each School Facilities Project when design issues arise.

11.2 Warranty Inspection

The Design Consultant shall attend, in conjunction with the PMF, approximately eleven (11) months after Substantial Completion or final payment, a one-year warranty inspection and submit a written report to the Authority Project Officer on the findings and then advise the Authority Project Officer on the findings. The Design Consultant shall, upon completion of warranty work by the Contractor (but not later than thirty (30) days after the end of the one-year warranty period), re-inspect the Work, and submit a final warranty inspection report.

The final report shall include a list of all warranty issues identified, current status of correction by the Contractor, and remaining work yet to be completed.

11.3 Product Inspection

The Design Consultant shall attend, in conjunction with the PMF, approximately eleven (11) months after Substantial Completion, a one-year inspection to review quality and durability of products specified and utilized in the School Facilities Project. A written product inspection report of recommendations for future projects shall be submitted to the PMF.

The final product inspection report shall detail findings related to durability and suitability of products specified for the School Facilities Project, including architectural finishes and HVAC equipment.